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Arizona Doesn't Have Tulips

By Timothy Holveck, Wisconsin Department of Natural Resources, Integrated Science Services

The tulip is my favorite flower—not because of the scent, in fact the tulip doesn't smell like much at all, nor is it because of the vibrant, diverse color spectrum in which the tulip blooms. The tulip is my favorite flower because I was born in the middle of May.

I grew up on a half-acre lot right in the center of and during a time of a Midwestern urban sprawl explosion. Along one complete side of our yellow ranch-style home in a suburb northwest of Chicago, there was a modest tulip bed that would bloom appropriately every spring. In fact, the majority of them would reach perfect bloom during the beginning of the third week in May. From as far back as I can remember, indeed from the beginning of my very existence according to the pictures, every one of my birthdays entailed a vase of newly bloomed, freshly cut tulips adorning my great grandmother's dining-room table. I see now how important that association is for a young boy—my mother baking my birthday cake in the kitchen, my mother's grandmother whom I met only in pictures, and the vibrant colors that only the nature of my home could produce. It was when my family moved across the country when I was nine that I became aware of how important those tulips were to me. The Southwestern U.S. is a beautiful and unique part of the country; but, it is not home to me. Arizona doesn't have tulips.

Our home and indeed our point of reference are integral parts to all types and levels of education, including environmental education. "Environmental education should begin with the question—What makes a particular environment personally significant?" says Ralph H. Lutts in the *Journal of Environmental Education*, "I do think that it will be



useful for us to more self-consciously develop ways to teach for a sense of identity in place and time that can become an integral part of our [environmental education] programs." When students stop seeing environmental education and conservation as scientific and theoretical but rather begin to personalize it, is when the education becomes applied. "In addition to evaluating what we teach in terms of its contribution toward creating a sense of continuity in place and time, we should also ask whether our curricula incorporate the elements that foster the experience of home. Our students should become participants in a valued environment—through study, sensory and aesthetic involvement, and physical activity," Lutts says. Environmental education is as much humanitarian as it is scientific, and our education should reflect that.

Ultimately, I can't say that the above childhood memories alone were enough to instill in me my respect for the natural landscape or create my strong interest in botany; however, it is truly odd how a single flower could create such powerful memories. ♦

Editor's Note: This special issue of *EE News* focuses on the "sense of place"—a child's emotional connection with the natural world and the built environment—from the earliest developmental stages, through adulthood. This connection is often an unspoken relationship to the land—perhaps a secret place tucked away in a thicket in the back yard, or a place that we still revisit as adults to get-away, relax, and recharge. A sense of place can be established at home, in our back yards, neighborhoods, schools, and communities.

Connecting students with their own sense of place can help them gain a better understanding of the natural world, the social environment, American culture and history, and ultimately everyone's responsibility to help develop suitable and sustainable communities in which to work and play. Place is an essential element of learning and understanding how the land and natural resources fit into each of our lives and our sense of well-being.





A Sense of Place

Sense of Place and Child Development

By Ruth Wilson

Places shape human history—both collectively and individually. People who grow up in one part of the world and within a particular

culture develop a different set of attitudes, values, and behaviors than do people growing up in a contrasting part of the world and within a different cultural group. Similarly, children growing up in an inner city tend to differ in some ways from children growing up in a rural community. These differences are often reflected in what the children fear, like, or dislike, as well as in the types of skills they develop through their own set of experiences. One child, for example, may be able to recognize the different types of creatures living in a creek (e.g., crawdads, minnows, toads, etc.), while another child may be able to read street signs and bus schedules at an early age. Thus, it's not hard to understand that "just as we shape our environments, they shape us" (Lutts, 1985).

Most early childhood educators are well aware that young children learn by interacting with their environments. What seems to be less well understood, however, is the concept that not all environments are equal in terms of inviting or encouraging children to become actively engaged. Some environments encourage children "to pause, play, and stay awhile" (Olds, 1989), while others do not. Some environments foster a sense of place in young children; others do not.

The term "place" when used in the context of a sense of place does not mean simply a geographic location. Place in this context refers to location plus many other factors that give that location its unique character (Lutts, 1985). Qualities or factors of an environment that contribute to effect change. Other factors contributing to a sense of place experience include complexity, diversity, opportunities for immersion or immediate encounters with the natural world, and opportunities for the experience of magic or memorable moments.

Place experiences contribute significantly to children's cognitive development and their understandings of the world around them. (Proshanski & Gottlieb, 1989.)

Positive place experiences provide opportunities for children to explore, to manipulate, and to be involved. If the environment is limited in opportunities for exploration and involvement, the child's potential for learning in that environment is also limited. "The motivation to interact with the environment exists in all children as an intrinsic property of life, but the quality of such interactions is dependent upon the possibilities for engagement that the environment provides" (Olds, 1979). It is therefore important for teachers and parents to create "habitats" that nourish children's awareness and actively support their learning as well as promote all other aspects of their development (Olds, 1989).

In addition to supporting learning

In addition to supporting learning about the natural world, sense of place experiences also impact on the child's developing sense of self.

—Engle & Franklin

about the natural world, sense of place experiences also impact on the child's developing sense of self (Engle & Franklin, 1991; Proshanski & Gottlieb, 1989). Children's physical environments "communicate important messages to them about who they are and what they may aspire to be" (Cohen & Trostle, 1990). A warm, nurturing, stimulating environment tells children that they are valued and that their way of learning is understood and respected. A dull, disorganized, or impoverished environment, on the other

hand, suggests to children that they are not valued or respected. Such messages impact strongly on how children perceive themselves as learners and explorers. This, of course, also affects self-esteem, feelings of competence, and sense of rootedness. "Knowledge of a place—where you are and where you come from—is intertwined with knowledge of who you are. Landscape, in other words, shapes mindscape" (Orr, 1992).

Sense of place experiences also

The quality of the physical environment can also affect young children's attitudes and values toward the world of nature and their role as caretakers or guardians of the land. — Nabban & Trimble

contribute to the development of imagination and creativity in young children (Cobb, 1977; Olwig, 1991; Wilson, 1996). Such experiences foster a sense of wonder and enhance one's aesthetic appreciation of the environment. These experiences, in turn, tend to remain as "ecstatic memories" enriching one's life throughout adulthood (Chawla, 1990). Such memories, or "landscape of memory," can prove vital to later creativity (Olwig, 1991).

The quality of the physical environment can also affect young children's attitudes and values toward the world of nature and their role as caretakers or guardians of the land (Nabban & Trimble, 1994). Parents, educators, and community planners would thus do well to ensure safe and aesthetically pleasing natural environments where young children can manipulate and explore.

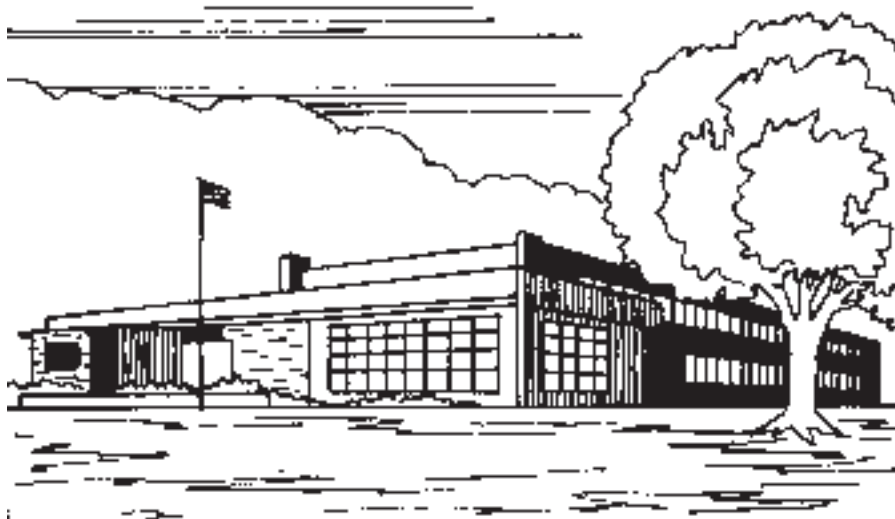
A Sense of Place

We do not organize education the way we sense the world. If we did, we would have departments of Sky, Landscape, Water, Wind, Sounds, Time, Seashores, Swamps, and Rivers. Instead, we've organized education like mailbox pigeonholes, by disciplines that are abstractions organized for intellectual convenience.

I suggest that at all levels of learning K through Ph. D. some part of the curriculum be given to the study of natural systems roughly in the manner in which we experience them. The idea is hardly novel. It is an old idea going back at least as far as the belief that natives have something to teach us. The idea is simply that we take our senses seriously throughout education at all levels and that doing so requires immersion in particular components of the natural world—a river, a mountain, a farm, a wetland, a forest, a particular animal, a lake, an island -- before introducing students to more advanced levels of disciplinary knowledge.—by David W. Orr ♦

A Sense of Place, continued

Sense of Place and the School Environment



For most young children, the first public place they use and come to know intimately is their preschool or primary school. After this time, the school experience becomes a dominant force in their lives, in that by the end of their high school years, typical students will have spent approximately 12,000 hours in a classroom (Orr, 1992). Because the nature and quality of the environment are major factors in how and what students learn (especially during the early childhood years), it is important to carefully critique the type of environments provided for them in the school setting.

Required building inspections, focusing primarily on safety issues, should be viewed as only one dimension of a school environmental survey. Other dimensions should focus on the aesthetic qualities of the school environment and ways in which a sense of place is fostered. Specific questions that might be addressed in an environmental survey of this type are outlined in the publication *Wildlife and the School Environment* (RSPB, 1992) and include the following:

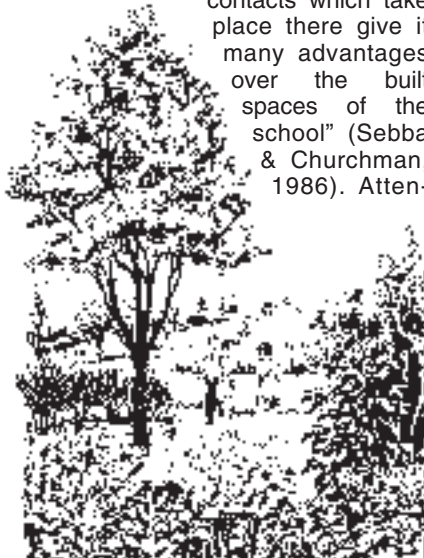
- ❖ What is the first impression a visitor gains of your school and its grounds when entering the site?
- ❖ Which of these features exist in the school grounds; log/brushwood pile, sheltered area, hedges, sand-pit, nestboxes, batboxes, greenhouse, sundial, compost heap, weather station, mural, nature trail, sculpture, pond, marsh, stream, ditch, wildflower meadow, herb garden?

Schools generally do not fare well in responding to the above questions. The quality of their outdoor environments and

habitats for learning usually leaves much to be desired. "A visit to most schoolyards the world over leaves one with the strong impression that the schoolyard is perceived as an area that is 'not school,' as intended mainly for the time when there are no classes. The yard is seen as a place with no unique value of its own" (Churchman, 1986).

What tends to be seriously overlooked is the fact that the schoolyard is, in effect, the children's "city square" where they meet to play, to talk, and to interact with other children (Sebba & Churchman, 1986). "The schoolyard has unique potential as a place for experiencing freedom of movement and play, creativity, discovery, and social values. Its open spaces, its...possibilities for contact with natural elements and the informal social

contacts which take place there give it many advantages over the built spaces of the school" (Sebba & Churchman, 1986). Atten-



tion to the following suggestions may help in actualizing the unique potential of the schoolyard environment as a place for learning and becoming.

❖ **Work Toward Preserving or Creating Natural Areas Around the School.** As more and more children are growing up in urban environments, the need for preserving or creating natural areas in school and neighborhood settings becomes increasingly more pressing. Access to such areas on a frequent basis during childhood has been identified as one of the major predictors of environmental sensitivity and responsible land stewardship (Chawla, 1996; Palmer, 1993; Tanner, 1980). Such settings also provide opportunities for the child to manipulate elements in ways that are not possible or permissible in the home, such as construction with found objects and playing in dirt and puddles. Research indicates that such "environmental play" contributes in an important way to social and cognitive development (Proshansky & Gottlieb, 1989).

❖ **Create Opportunities for Seclusion and Quiet.** Research indicates that many children seek out places where they can spend sometime alone and that they enjoy intimate, enclosed, and hidden places as well as exciting and dangerous places (Hart 1979; Nabhan & Trimble; 1994; Sobel, 1993). When available, nestlike refuges or structures are often used by children seeking places for seclusion and quiet. For some children, such refuges become important places of attachment or security in times of trouble. Children also use such palaces to act out dramas or stories, including stores of animal life. By acting out the story of a bear hibernating in the winter or a bird nesting her young, children can develop feelings of connectedness and caring for other living creatures. Such "pretend play" episodes can also lead to questions about animal life and foster closer observations of native animals and how they live.

❖ **Provide Opportunities for Active Exploration.** For children, the attractiveness of a place is closely related to the possibilities for active use of the place. Because children



want to explore and manipulate, their favorite places tend to offer a variety of opportunities to do just that.

Thus, special places for children often invite digging in the dirt or sand, playing with water, turning over rocks and logs, and watching the birds build their nests.

❖ **Encourage Activities Where Children Can Effect Change.**

Children have an inner need to modify, change and influence the environment. At an early age, the need to feel effective as an agent of change is a strong factor in the healthy development of a child (Hart, 1979; van Anel, 1990). Children's evaluation of the "attractiveness" of a place tends to be based on the question of "What can I do here?" whereas adults tend to ask "What does it look like" (van Anel, 1990). An understanding of children's place preferences suggests that it's far more important to provide opportunities for them to create and recreate their own environments rather than to plan activities for them to do.

❖ **Build in Diversity and Complexity.**

Most habitats where children live and play are habitats designed for only one species (i.e. humans) (Nabhan & Trimble, 1994). The "sameness" of such habitats tend to dull, vs. stimulate, the senses. Yet, for healthy development, children need diversity and sensory stimulation in their environments.

While dramatic fluctuations in stimulation level can be frightening and disorienting, rhythmic patterns of movement (such as are present in nature) help maintain optimal levels of responsivity and alertness (Olds, 1989). Nature provides some of our most comforting experiences-in part, because of the way it provides "difference-within-sameness," or variety within a framework of

predictability (Olds, 1989; Striniste & Moore, 1989). Without sufficient diversity, places tend to be not only dull but also repressive, and certainly grossly inadequate in meeting children's basic play and learning needs (Moore, 1980).

❖ **Provide Opportunities for Immersion or Immediate Encounters with the Natural Environment.** Children need environments that offer opportunities for "intensely vivid and immediate encounters with the natural world" (Howett, 1993). Such encounters are encouraged in environments rich in sensory stimulation, where children have many opportunities for feeling, hearing, tasting, smelling, and seeing. Direct exposure to a variety of plants, to sun and shade, to water, sand and soil, to wildlife and weather changes immerses children in the world of nature and tends to foster a rich sense of place experience. The following "immersing techniques" suggested by Van Matre (1990) can be used to further enhance young children's encounters with the natural world:

- ✓ Take off some articles of clothing to increase physical contact.
- ✓ Crawl or roll instead of walk.
- ✓ Get off the path: go cross-country through the grasses and weeds.
- ✓ Pet and hug and kiss things in the world of nature.

❖ **Provide Opportunities for Children to Personalize Spaces and Places.**

The school environment, in too many cases, tends to be institutional in nature. It is difficult for children in such environments to have a space that they feel "belongs" to them. Encouraging children to create, change, and personalize spaces and places can counteract some of the otherwise generic elements of the school environment and foster feelings of attachment. Personalizing a place was done in one preschool by creating an "alphabet garden" where individual pots of plants corresponded to individual children's names. First initials were used for determining the correspondence. Thus, peas were planted for Paul, bluebells for Bonnie, strawberries for Stacie, etc. Personalizing a place, or helping children feel "ownership" of a place, can also be accomplished by involving the children in the ongoing development of the yard. This might be by way of gardening, building and hanging bird feeders, constructing and maintaining a compost pile, etc.

To heighten awareness of a setting and to increase attachment to it, a process of "certification" might be used. Certification involves spotlighting a particular place and presenting it in some way to the public. Presentations of a place can be made by way of videotaping, photographing, painting, drawing, descriptive writing, etc. Such a presentation "certifies" the importance of a particular place and "results in a person feeling that his or her setting is somehow special, legitimate, or more real" (Steele, 1981).



A Sense of Place, continued

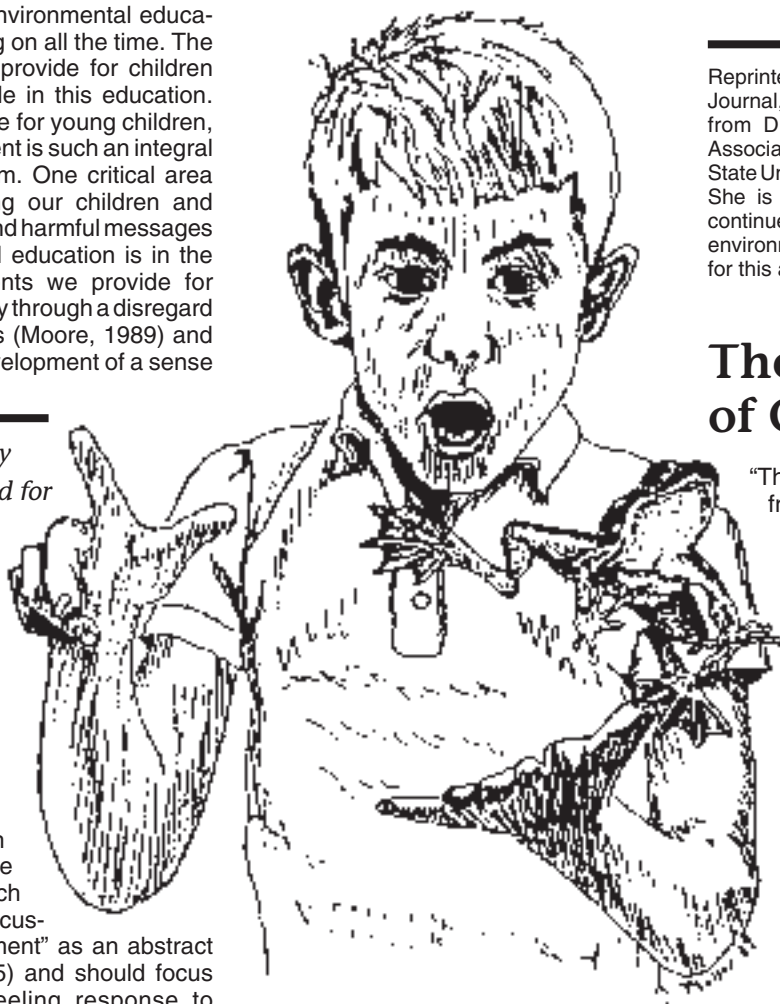
Environmental Education and a Sense of Place

All of education is environmental education, in that it is going on all the time. The kinds of places we provide for children play a significant role in this education. This is especially true for young children, where the environment is such an integral part of the curriculum. One critical area where we are failing our children and giving inconsistent and harmful messages about environmental education is in the types of environments we provide for them. We fail primarily through a disregard for natural resources (Moore, 1989) and inattention to the development of a sense of place.

We fail primarily through a disregard for natural resources and inattention to the development of a sense of place. — Moore

Environmental education should foster an exploration and appreciation of the environment in which we live rather than focusing on the "environment" as an abstract concept (Lutts, 1985) and should focus on developing a feeling response to place (Adams, 1989). Such a response is critical to environmental conservation, for cognitive understandings alone are not sufficient for motivating us to care for the natural world (Chawla, 1988).

Research indicates that childhood experience of the out-of-doors is the single most important factor in developing personal concern for the environment (Palmer, 1993; Tanner, 1980). Without such experiences, children tend to develop fears and discomforts which get in the way of coming to know and care about the world of nature (Bixler, et al., 1994). Once unfounded fears and misconceptions about nature develop, environmental education programs take on the role of being corrective or remedial rather than formative and are thus less effective in accomplishing their goals (Bixler et al., 1994).



Conclusion

Places shape the stories of our lives. These stories become ongoing "ecological conversations"—i.e., expressions of the dialogue between ourselves and the environment (Lutts, 1985). When this conversation ends, so will our future.

The development of healthy environmental awareness and concern starts with a feeling response to nature. Such a response comes primarily by way of firsthand positive experiences in the out-of-doors, especially in environments fostering a sense of place experience. Attention to creating a sense of place for young children can thus provide helpful in fostering a lifelong commitment to the natural environment. In designing sense of place play and learning spaces for young children, we are, in deed, designing the future as well.

In designing sense of place play and learning spaces for young children, we are, in deed, designing the future as well.

Reprinted from the Early Childhood Education Journal, Vol. 24, No. 3, 1997, with permission from Dr. Ruth Wilson. Dr. Wilson was an Associate Professor with Ohio's Bowling Green State University when the article was published. She is now retired, living in Michigan, and continues to write and consult on topics in environmental education. See the references for this article on page 6. ♦

The Geography of Childhood

"The summer I was eight, I caught frogs. We were in Aberdeen that field season, a tiny town on the western shore of American Falls Reservoir, surrounded by Idaho potato fields strewn with sprinkler pipe and, beyond, the black lava of the Snake River Plain. What mattered to me, however, was the grid of ditches that lined every street and allowed the mostly Mennonite and Mormon families of the town to flood-irrigate their lawns on hot summer mornings. With two buddies, Tony and Billy, the sons of my father's field partner, I searched for frogs.

The frogs were tiny-young leopard frogs. Adult frogs must have lived nearby, but I remember only the delicate animals an inch long. I lay on the banks and peered under the plank bridges where footpaths crossed the ditches. The silver surface of the water mirrored the hazy cloudless summer sky. With luck, a small amphibious head would break the surface, two bulbous eyes peering off to the sides. I lay in wait, then lunged. I harassed far more individuals than I caught, but the captures excited me as much as the first kill must for a boy in a hunting culture. I plunked the little frogs into empty coffee cans to take them home for a night, and then returned them in the mornings, sluggish but surviving.

Simply discovering that the frogs lived in those ditches in our front yards brought the wildness of other beings into my life."

Excerpts from *The Geography of Childhood* by Gary Paul Nabhan and Stephen Trimble. ♦



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Where Would Huck Finn Be Without the Mississippi?

By Timothy Holveck, Wisconsin Department of Natural Resources, Integrated Science Services

A great thing about literature is that it records not only the story of the author but also the political, sociological, and cultural climate of a particular moment. When the American author initially became established, the reader's senses were awakened with a distinct style that arose from a culture that depended as much on the adventurous, untamed landscape as on the ideals of freedom. Because the American story is intimately tied to its landscape, we can and should examine environmental issues that are recorded in our literature. Educators at all grade levels are encouraged to discuss the environment's place in stories so that students can begin to see the sense of place we have established in connection with the very landscape in which we live. After all, to lose the American landscape is to lose the American story.

America has always signified a right to land ownership; however, well before permanent settlers set foot upon its soil, explorers were gathering inspiration within America's forests and atop its rock formations. Captain John Smith depicts the difficult terrain in *The General History of Virginia, New England, and the Summer Isles*, where he describes the simple life: "our drink was water, our lodgings castles in the air." The captain's words read more like a child's adventure diary than a historical account.

The Native American myths, now recorded in writing, are largely based on the environment as well. In the 'Trickster' Tales, so named by Daniel G. Brinton, the main 'Trickster' often takes various animal forms. In the tale of Wakjankaga of the Winnebago, the main 'Trickster,' searches for a place to live because the world is changing. While looking for a home, Trickster transforms into a human woman intending to marry a Chief's son. She (Trickster) bears three children, and the third one cries, "If I only could play with a little piece of white cloud! If I could only play with a piece of blue sky!" They give the child a piece of blue grass, but he again cries out for some blue (green) leaves and then for some roasting ears (of corn). This segment of the tale shows the elements in nature that signify a child's sense of home.

The American landscape was altered significantly during the 19th Century,

ultimately commercializing the new country. This change in culture also affected the landscape of the American story. Many writers felt that America was becoming too material and profit-oriented. In 1836, Ralph Waldo Emerson wrote *Nature*: "The greatest delight which the fields and woods minister, is the suggestion of an occult relation between man and the vegetable. I am not alone . . . They nod to me and I to them." Henry David Thoreau, a later writer who was heavily influenced by Emerson, wrote *Walden* in 1854. His words were somewhat of a national call away from the impiety of the cities and to the countryside: "Wherever I sat, there I might live, and the landscape radiated from me accordingly . . ." *Walden* is perhaps the first work promoting American conservation. Emerson and Thoreau shifted the environmental consciousness from the notion that the land was something that we work and profit from, to an awareness that nature was also something within us, working us.

In 1883, Mark Twain published *The Adventures of Huckleberry Finn*. This piece combines politics, racism, classism, injustice, religion, and childhood adventure and packages it all in a tiny raft traveling down the Mississippi River. It is a story of a simple childhood adventure, and it is a story of a complex national dilemma; but, the hills, fields, and rivers within the story are as intricate to the novel's production as is Twain's pen itself. After all, where would Huck Finn be were it not for the Mississippi?

Even those who were not pioneers found the environment inspiring. Emily Dickinson wrote consistently about nature in her numerous poems, "The Wind Begun to knead the Grass—As women do a Dough—He flung a Hand full at the plain—A Hand full at the Sky—..." [poem 824]. Since the close of World War II, American authors have successfully exposed the importance of the natural world to our urban lifestyle, especially within children's literature. Katherine Paterson in *Bridge to Terabithia* outlines the sanctity and comfort nature provides two young friends. Terabithia, Jess' and Leslie's private kingdom in the woods, is their place to avoid the intimidation and shallowness of the outside world. As more children are brought up in an environment increasingly removed from the natural landscape, it seems more



children are discontented by the fewer stories they have to tell.

The environment and indeed our sense of place in it are pivotal to the diversity and prosperity of America's stories; therefore, we can look at environmental education via the American story. By discussing with your students the landscape's significance in classics like *Walden*, *Huck Finn*, and *Terabithia*, your students can make connections between themselves and the environment and between themselves and history. These realizations will complement current environmental education curricula. Students will see that the landscape influenced both past and present stories. Without the environment, we have no stories, no past, and no future. ♦

Stories inspired by the landscape

(Listed from earliest grade levels to upper grade levels)

Salt Hands, Jane Chelsea Aragon, illustrations by Ted Rand.

A Pocket Full of Cricket, Rebecca Candill, illustrations by Evaline Ness.

Good Morning, River, Lisa Westberg Peters, illustrations by Deborah Kogan.

The Big Idea, Ellen Scheeter.

Where the River Begins, Thomas Locker.

The Wind in the Willows, Kenneth Grahame, illustrations by Ernest H. Shepard.

Watership Down, Richard Adams.

Julie of the Wolves, Jean Craighead George, illustrations by John Schoenherr.

The Yearling, Marjorie Kinnan Rawlings.

The Secret Garden, Francis Hodgson Burnett.

Caddie Woodlawn, Carol Ryrie Brink.

The Pearl, John Steinbeck.

For a more complete listing of children's literature that has an environmental emphasis, visit the Teacher Pages on EEK!—Environmental Education for Kids Web site and download Children's Environmental Literature bibliography at: <http://www.dnr.state.wi.us/org/caer/ce/eeek/teacher/childlit.htm>, or request a paper copy from Project WILD/PLT, P.O. Box 7921, Madison, WI 53707. ♦

The Economics of Building a Sense of Place

By Timothy Holveck, Wisconsin Department of Natural Resources, Integrated Science Services

After the industrial revolution, many authors became concerned about the mechanization of the human spirit. Although modern literature has seemingly little to do with responsible and economic land-use, the idea that we are only built to measure, cut, paste, and produce is simply not true. We are creatures that require the physical needs of food and shelter along with the spiritual need of a sense of place in our communities. This sense of place is not just important to residents in our communities but also to our local economies. This is not to say that modern literature is somehow directly linked to the Wisconsin experience, but rather that its criticisms of modern life are significant to Wisconsin's urban land use, and they are ideas that we can even see in our own Wisconsin towns.

For example, Beloit is a Wisconsin city that represents the need for a sense of place. This city bordering two states quickly became a source of international commerce because of its location on the banks of the Rock River. The most significant industry to Beloit's economy and landscape was Fairbanks Morse, which stood on a 120-acre site on the east bank of the Rock River. This manufacturing complex profitably produced diesel train and other large engines through the 1960s until the steady drop in the diesel engine market after World War II. By 1988, employment at Fairbanks Morse had gradually tumbled by 86%, and the surrounding neighborhoods that once supported the company's vibrant workforce began to decay. Investors shied away from downtown, and Beloit eventually realized a zero growth in industrial, commercial, and residential property. These losses cast an overall negative image on the city.

In 1989, the not-for-profit development corporation called *Beloit 2000* launched the city into a revitalization of the historic waterway from industrial decadence back to its cultural and historic roots. Beloit realized that in order to reform its sagging economy, it must also change the appearance of its downtown landscape environment.

Beloit's motivation may not seem purely economic, but a town's charm and character indeed has appeal both for native and touring consumers. James Howard Kunstler discusses in *The Geography of Nowhere* the social economy of the U.S.: "The freedom to pick up and move is a

premise of the national experience. It is the physical expression of the freedom to move upward socially, absent in other societies." With American's becoming increasingly mobile, the attraction of a new job has as much to do with the beauty and atmosphere of the town as with the position itself.

Also, people make their home in certain places for many of the same reasons that a tourist may visit the same locale. The Fox River trail from Green Bay to Greenleaf, for example, represents the ties between the economy and the local landscape, or a sense of place. Mellody Parchia recently reported in the *Green Bay Gazette* that the owners of a local frozen custard shop experienced a 30 percent increase in business the first

weekend that a 5.4-mile section of the trail was paved in the spring of 2001. The access to and the establishment of a special place—the trail—brought more bicyclists, roller bladers, and other enthusiasts to the area. More aesthetic recreation spaces mean more money for local business. This equation is a simple economic fact; however, how does a town in decay begin to establish this sense of place?

Many small cities across Wisconsin are working to conserve their small-town atmosphere because of its economic benefits. Simply opening up space for urban parks, planting trees along established roadways, or—like Beloit—rediscovering a 'riverfront' location can help create a unique and special place. ♦

Wisconsin Has Several Programs to Help Transform Space into a Special Place.



The **Urban Greenspace Program** works "to enhance the quality of life for Wisconsin urban dwellers by providing open natural space within or in proximity to urban development." Through this program, the Wisconsin DNR awards federal and state funds to counties, towns, cities, villages, and Indian tribes with an approved Comprehensive Outdoor Recreation Plan; the recipient then matches the awarded money. Eligible projects also include the protection of areas or naturally formed features that have scenic, ecological, or other natural values as well as areas that provide noncommercial gardening land for inhabitants of urbanized areas. Interested parties can contact the Community Services Specialist in each of the five DNR regions or visit the Stewardship Program's Web page and use the alphabetical pull down list of grant programs found at: <http://www.dnr.state.wi.us/org/caer/cfa>. The annual application deadline is May 1st. For more information on this program in your area, contact your local DNR Service Center.

The **Urban Forestry Program** was created "to encourage and enable sound management of Wisconsin's urban forest ecosystems." The program works with community officials, green industry professionals, businesses, schools, non-profit organizations, and the general public to expand, improve, and manage the urban forest. The program focuses on four main areas:

- ♦ Technical Assistance—helping communities develop management plans, tree inventories, and local ordinances
- ♦ Education and Training—directed towards a diversity of groups
- ♦ Resource Development—administering state and federal cost sharing programs
- ♦ Public Awareness—promoting support of our urban forests

Urban Forestry Assistance Grants are available on a 50:50 cost-share basis to cities, villages, towns, counties, and tribal governments (*schools are not eligible*). Reimbursement amounts range from \$1,000 to \$25,000. Submit an "Intent to Apply" form in late spring, or log onto the DNR's Forestry Web page found at: <http://www.dnr.state.wi.us/org/land/forestry/uf>. Contact the *Urban Forestry programs* at your local DNR Service Center, or the Statewide Coordinator Dick Rideout, Wisconsin DNR, 101 S. Webster St., PO Box 7921, Madison, WI 53707, (608) 267-0843, e-mail: rideor@dnr.state.wi.us.

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Wisconsin Programs *continued from page 8*

Wisconsin's Brownfields Initiative.

Because older industrial and business areas may contain contaminated properties (called 'brownfields') and a potential liability factor for future owners, many investors have been weary about inner-urban reinvestment. In the past this has resulted in urban sprawl and the decay of original urban areas and older towns. Fortunately, Wisconsin's State Legislature enacted the Land Recycling Law and several other laws in the 1990s to encourage the re-use and cleanup of contaminated properties. These laws allow businesses to voluntarily cleanup old properties and include protections for purchasers, municipalities, and lenders from future liability or cleanup responsibility. The laws also create millions of dollars in grants and other financial programs to encourage property investigation and cleanup. Overall, the law will increase the individual, environmental, and economic health of all 72 Wisconsin counties, which together contain an estimated 10,000 brownfields. *For more information on this program, contact Jessica Milz, Brownfields Outreach Specialist, Remediation and Redevelopment Program, (608) 267-0559, milzj@dnr.state.wi.us, P.O. Box 7921, Madison, WI 53707.*

Smart Growth. Cities and counties across the state are recognizing the economic and **aesthetic** appeal of creating—or recreating—an urban sense-of-place. This is in part because of the "Smart Growth" comprehensive planning law that requires all Wisconsin municipalities to base decisions on an adopted land-use plan by 2010. Cities are obligated to analyze their region from a birds-eye land-use view. The city of Eau Claire explicitly considered aesthetics in its comprehensive plan and consequently won an "Excellence in Planning Award." The city plan vowed to "preserve and enhance the community's major natural and architectural features, reinforce the visually pleasing, warmly distinctive, and attractive small city character, and ensure that all development contributes to a clear, orderly, and harmonious pattern." The city of Eau Claire recognized the economic value of preserving its innate sense of place. *For more information about the Smart Growth legislation, contact the Office of Land Information Services at (608) 264-6103, visit their Web site at: <http://www.doa.state.wi.us/olis/index.asp>, or write to 17 S. Fairchild, Madison, WI 53703-3219.* ♦

Keys to Creating a Sense of Place

Kent Robertson, Professor of Community Studies at St. Cloud State University, believes that a person will venture downtown rather than to a suburban shopping mall if the downtown has what he calls a strong sense of place. Robertson characterizes a "distinctive place" as one that "embodies a character, look, flavor, and heritage that are not found in other locations, especially within the surrounding region." Robertson says that a strong sense of place is "vital to the health and prosperity of a downtown" and offers a list of eight key elements needed to develop a strong sense of place.

1. A downtown must be distinct from other commercial settings. This includes both the built and natural settings of a city capitalizing on the intrinsic historic, economic, natural, and cultural amenities and by focusing on the character, look, flavor, and heritage not found elsewhere. Easy pedestrian access to rivers or lakes also offers a unique sense of place.
2. Downtown buildings should represent multiple generations and change over time, reflecting economic, social, and cultural change.
3. The downtown should represent the unique heritage of a community. A sense of place is closely associated with the degree to which individuals can connect to a place in terms of their own experiences and to those of their family and community. It is usually the site of parades, festivals, celebrations, and political rallies. A key to preserving a main street's sense of place is the maintenance, preservation, and use of landmark buildings.



4. The multi-functionality of downtown makes it efficient, and increases the number of consumers overall. A mix of employment, shopping, worship, tourism, housing, government services, and dining adds to the usefulness and importance of a

place. More functions result in more people using the downtown as an important place within their daily lives.

5. A sense of place is best experienced on foot in order to appreciate the amenities. Wide, safe, and lighted pathways and sidewalks that offer interesting things to view and walk past, such as attractive building facades, window displays, landscaping, and open spaces, will provide a special sense of place.
6. The presence of people will attract more people to the downtown area. Activity throughout the day gives the perception of vitality and attracts diverse users to a wider variety of businesses.
7. A community's sense of place urges people to linger, enticing them to visit more local businesses. A place must be comfortable, safe, attractive, and interesting. The use of planters, shade trees, and benches offer people a place to sit, rest, and linger.
8. If local residents have pride in their main street and want to spend time there, then they will feel a stronger sense of community ownership. The greater number of stakeholders, the greater the potential for building and maintaining a sense of place and community. ♦



Resources to Create a Sense of Place in Your Community

Urban and Community Forestry

The following publications can be ordered from the Division of Forestry, DNR, P.O. Box 7921, Madison, WI 53707, call (608) 267-7494, or e-mail: jerzed@dnr.state.wi.us.

Useful Community Forestry Publications, Newsletters, and Organizations. This 18-page report lists urban and community forestry-related publications, newsletters, and organizations. Also available at <http://www.dnr.state.wi.us/org/land/forestry/uf/resources/reference.pdf>.

Urban Forestry Video Resources. This 12-page bibliography lists videos related to urban and community forestry topics. Entries include title, summary, audience, length, date, producer, order from, cost, copy policy, and comments. Also available at <http://www.dnr.state.wi.us/org/land/forestry/uf/resources/videolist.pdf>.



Brownfields Redevelopment

The following publications can be ordered from the Bureau for Remediation and Redevelopment, DNR, P.O. Box 7921, Madison, WI 53707. You can download the publications from our Web site (see below), or by calling our information line at (800) 367-6076 (in-state long distance) or (608) 264-6020 (out-of-state long distance).

Brownfield Basics—Tools for Cleaning Up and Redeveloping Contaminated Properties. This brochure describes what brownfields are, what financial assistance is available to clean up and redevelop brownfields, what technical assistance is available from DNR staff, and more. Also available at: <http://www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR663.pdf>.

Brownfield Basics for Local Governments.

This brochure describes tools, financing, assistance, and publications available to local governments as they clean up and redevelop brownfields. Also available at: <http://www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR658.pdf>.

Brownfields Success Story—CenturyTel: A Successful Partnership for La Crosse.

This brochure highlights the successful CenturyTel brownfield project in La Crosse, which is part of the Riverside Redevelopment Project. An abandoned industrial area was cleaned up and turned into CenturyTel's new Midwest regional telecommunication headquarters. Also available at: <http://www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR662.pdf>.

Brownfields Success Story—Milwaukee, West Milwaukee Brownfields Revitalized.

This brochure presents a success story describing the redevelopment of the Inryco and Babcock & Wilcox brownfield properties. Also available at: <http://www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR668.pdf>.

Sustainable Urban Development Zone (SUDZ) Project Update.

This publication provides an update on the work being done through the sustainable urban development zone (SUDZ) program as of June 2001. Also available at: <http://www.dnr.state.wi.us/org/aw/rr/archives/pubs/RR667.pdf>.

In addition to the above listed publications, a variety of other brownfields-related information can be found on the DNR's Bureau for Remediation and Redevelopment Web site: <http://www.dnr.state.wi.us/org/aw/rr/index.htm>.

Urban Rivers

The River Alliance of Wisconsin. A non-profit, non-partisan group of citizens, organizations and businesses dedicated to advocating for the protection, enhancement and restoration of our rivers and watersheds. Their priorities include selective dam removal assistance, hydropower facility and recreation issues, watershed protection, and run-off pollution abatement. Visit their Web site at: <http://www.wisconsinrivers.org/>, or contact them at: 306 East Wilson Street, #2W Madison, WI 53703, call (608) 257-2424, or e-mail: wisrivers@wisconsinrivers.org. ❖

For Educators

A sense of place is as important to a community's businesses as to its residents. How do your students feel about their community's sense of place? What is uniquely beautiful about your community—can you locate some of the elements listed above? Are there any areas where your community could improve? The activities included in this issue will help you and your students explore these questions together. ❖



Wisconsin's Champion Trees

The Wisconsin DNR maintains records of the largest trees in the state. They're called *champion trees* and they often help create and define our sense of place in history. The DNR keeps track of these trees and publishes a special guide with educational activities to encourage the appreciation of Wisconsin's forests and trees.

The champion tree records are a result of many people's work. Hunting for the big ones can put you in touch with our natural resources heritage. Many of the records, however, are quite old and out-of-date. Some records are incomplete and individual trees listed may have died or lost branches and leaders, so they may no longer be champions. Schools and students can help provide updates or complete the records by engaging in community and school yard surveying and educational and fun tree-measuring activities.

You can also nominate a new champion tree—there are still many trees out there, just waiting to be discovered. Why not be the one to find them? Happy big tree hunting!

Contact the Urban Forestry Coordinator Dick Rideout for the activities and more details on the program at: Wisconsin DNR, 101 S. Webster St., P.O. Box 7921, Madison, WI 53707, (608) 267-0843, e-mail: rideor@dnr.state.wi.us, or visit the DNR Web site located at: <http://www.dnr.state.wi.us/org/land/forestry/uf/champion/> ❖

Activity: Discovering the Diversity of Landscapes



Objectives

Students will 1) learn about a variety of landscapes and that some landscape components are specific to a region while others are generic to the world; 2) identify key components of each landscape and then compare or contrast them; 3) identify places that give students a sense of place.

Grades

2-6

Subjects and Model Academic Standards

Language Arts

B.4.1

C.4.1, 4.3

F.4.1

Social Studies

A.4.4, 4.5, 4.7-4.9, 8.9

E.4.2

Skills

Writing

Oral Language

Research & Inquiry

Geography

Behavioral Science

Materials

- ❖ Set of 12 pictures, offering a diversity of landscapes
- ❖ Globe or map of the world
- ❖ Worksheet Landscapes Across the World

Background

The concept of a sense of place is as important to environmental education as is biology and ecology. It is the foundation for addressing all other topics in environmental education—tying emotions to locational geography. By examining a variety of community types, students learn that a sense of place is something every community has, but it differs from place to place. To help students understand these differences and to understand their own connection to the built and natural landscape and sense of place, they must first view a wide variety of community types. Through discussion, students will learn that a sense of place is important for every community and each person.

Preparation

1. Compile a collection of pictures (photographs, postcards, Internet printouts, etc.) of various landscapes from around the globe. These pictures should include examples of urban areas with no greenery, urban areas with some greenery, urban areas with a lot of greenery, rural areas with much activity, rural areas with little activity, and uninhabited regions (two examples of each yields 12 pictures). Ideally, the pictures should demonstrate the relationships between the built and natural environment.
2. Arrange the pictures around the room; try to avoid positioning two similar landscapes (e.g. two uninhabited regions) closely together.
3. Have a globe or map of the world conveniently placed so you can refer back to it when discussing specific regions.

Procedure

1. Discuss the area surrounding the school, asking students to identify the key physical features. Be sure to include cultural landmarks like historic sites; major geographical features such as bluffs, rivers, lakes, or forests; and green spaces such as parks, gardens, or landscaping.
2. Ask students to think about a variety of landscapes they have seen. Ask questions such as: "What does it look like where grandparents, aunts and uncles, and older siblings live? What places have individual students visited? What places have students seen in movies, read about, or heard about through stories?" Stress the variety and diversity!
3. Give each student a copy of the worksheet, *Landscapes Across the World*. Then, divide the class into groups of two to three students and ask each group to select a different picture along the wall. Students should examine the photo for a few minutes. Then, have students rate the scene according to their likes and dislikes on the worksheet. Because everyone does not begin at picture #1, remind students to make sure the number on the picture corresponds correctly to the worksheet number. Rotate each group past each picture as they complete the worksheet.
4. Ask students to answer the three questions on the worksheet, after they finish rating all the pictures.

Discussion






1. Ask students to describe why each landscape is unique. Discuss the differences between built and natural components. Encourage students to talk about the type of climate, industries, and recreation that might be found at each location.
2. Ask students where they would prefer to live and where they would not prefer to live and have them explain why. Record student preferences for everyone to see.
3. Discuss the advantages and disadvantages of living in each landscape.
4. Ask students to write down what they like most about where they now live and compare that to the landscapes they liked. Are there similarities? Differences?
5. Ask students what their 'ideal' community might look like and what 'feels' like home to them. This will define a student's connection to the landscape and their community. These components establish a child's sense of place.

This activity is adapted from "Across these United States: Discovering the Diversity of Landscapes in the USA" from *Viewfinders: A visual Environmental Literacy Curriculum* (Warwick: DUNN Foundation, 1996), <http://www.dunnfoundation.org>. ❖

Name: _____

Landscapes Across the World Tally Sheet

Place one checkmark in each row showing how you feel about each of the scenes shown.

Picture Number	 Like very much	 Like a little	 No feelings	 Dislike a little	 Dislike a lot
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Questions

1. Which landscape is most like your own?
2. Which landscape do you like the best? What do you like about this scene? Would you want to live there, why or why not?
3. Which landscape do you like the least? What do you dislike about this scene?

Activity: Understanding the Planned City



Objectives

Students will 1) gather data about their community; 2) learn how to analyze the collected data; 3) draw conclusions about how communities are designed.

Grades

6-9

Subjects and Model Academic Standards

Language Arts

A.8.3, 8.4

C.8.1, 8.3

D.8.2; F.8.1

Social Studies

A.8.1, 8.4

B.8.1, 8.10, 8.12

D.8.7

E.8.3, 8.4

Mathematics

C.8.1, 8.5

Skills

Reading

Oral Communication

Language Vocabulary

Research & Inquiry

Geography

History

Behavioral Science

Geometry

Materials

- ❖ A map of the local community for each student (map should include an area that encompasses a diversity of community services)
- ❖ Transparency or large copy of map of the local community

Background

Why is the bank on Main Street? Why is the fire station nearby? The locations of such services are often planned to provide convenient access for local citizens. This activity focuses on the design of a community and invites students to investigate reasons why commercial, residential, and industrial areas are located where they are by using maps and community investigation.

Preparations

1. Take students on a walking tour of the school grounds or around the block, and begin discussing why the school was built in this location. Ask students the following questions:
 - a. When was the school built?
 - b. What is located around or near the school that can help explain the school's location?
 - c. What was there first?
 - d. How much land is needed for a school?
 - e. What other requirements are there for a school site?

Procedure & Discussion

1. Distribute maps and have students locate and mark where their home and school are located.
2. Transfer each student's data onto the transparency map. Ask students the following: Are all the homes closely clustered around the school? Are clusters of students living in one area? How far do students travel to school? What determines which school a student attends?
3. Have students mark the location of community-service buildings such as a library, bank, and police and fire station are on their own map. Transfer these areas onto the transparency. Discuss whether certain types of services are grouped together (e.g. residential, commercial, industrial) in particular areas. If so, color-code the following types of areas on the transparency.

Blue	Purple	Yellow	Red	Green
Public	Industrial	Residential	Sm. Business	Recreation
City Hall Courthouse Police Department Fire Department Post Office	Factories Power Plants Waterworks (wastewater and drinking water)	Homes Duplexes Apartments Retirement Communities	Restaurant Drug Store Grocery Store Barber Shop/Hair Salon	Parks Roadside Trees (Green Belts) Playgrounds Open Areas Public Lands School Forests
Semi-public	Transportation		Lg. Business	
Churches Hospital Art Gallery Museum	Bus/Train Station Airport Park & Ride		Bank Insurance Co. Law Office Professional Offices	

4. Ask students if they can see reasons why the school was built at its current location.
5. Ask students what type of area the school was built in (e.g. public, industrial, residential, or commercial area). Ask students to identify what type of area is located around or near the school and if it was there before the school was built. Are there any patterns?
6. Invite the principal, librarian, other school official, local historian, or city planner to visit the class and explain why the site was selected for the school.

This activity is adapted from G. Graves K. Schaubert, P. B. Thomas, and D. W. Graves (conps.) "Understanding Land Use" in Walk Around the Block (Prairie Village: The Center for Understanding the Built Environment, 1997) and "Neighborhood Services—Where Are They and Why?" in Free Teacher-tested Lesson Plans, <http://www.NationalGeographic.com>. ❖

Activity: Planning the Model City

Objectives

Students will 1) learn how to creatively branch off from previously acquired knowledge; 2) work together to brainstorm and research ideas and then to propose and assess those ideas; 3) work within the geographic and planning boundaries to create their own ideal city

Grades

9-12

Subjects and Model Academic Standards

Language Arts

C.12.1, 12.2, 12.3; D.12.1; F.12.1

Social Studies

A.12.9, 12.12, 12.13;
B.12.1, 12.2;
C.12.8-12.11, 12.14,
12.16; D.12.1, 12.14;
E.12.15

Mathematics

C.12.1, 12.2; D.12.3

Skills

Oral Communication
Vocabulary
Research & Inquiry
Geography
Economics
Geometry

Materials

- ❖ Laminated aerial map or photo of your city for each group and one for entire class. Note: aerial photos can be purchased from most Regional Planning Commission offices. Most locations have photos reaching back to the 1960s. Another source is your County Land Conservation Department office.
- ❖ Colored pencils
- ❖ Felt pens or markers
- ❖ Planning the Model City worksheet

Background

This activity can be used as a continuation of “Understanding the Planned City” and allows students to apply their understanding of land use to the development of their own ideal city.

Preparations

1. Have students brainstorm the things that they associate with the word ‘city’ (i.e. tall buildings, traffic, etc.). These elements may be a direct result of a large number of people living and working close together. Have students list the different kinds of buildings and landscape features typically found in the following areas:
 - ❖ Rural (country) (e.g. farms, barns, single homes, pastures, forests)
 - ❖ Suburban (edge of the country and a city): (e.g. housing developments, malls, and low buildings)
 - ❖ Urban (city): (e.g. high-rises and skyscrapers, few single-family homes, city parks)
2. Explain that zoning laws exist to control the placement of different kinds of businesses and structures. (Note: For an introduction to zoning concepts, refer to the Winter 1998 edition of *EE News* (Vol. 15, No. 2). Discuss the different types of businesses (Activity 2 chart) that may be found in a city. Then ask students which types should be separate, which types can be mixed together, what types of businesses and factories might be incompatible with residential areas (Theaters require much parking, tall buildings block scenic views, etc.).
3. Ask students to think about the city in which they live. Explain that the city has been organized in an effort to meet a diversity of needs.
 - ❖ Natural Boundaries (rivers, mountains, valleys)
 - ❖ Major Roadways
 - ❖ Building Classifications (residential, industrial, commercial)
4. Have students study the list of “Keys to Creating a Sense of Place” (see page 9). Discuss some of the elements that are found in your own community.
5. Ask students to identify the most important elements that they would use if they were going to design their own city plans by combining all of the elements.
6. Once students have become aware of the importance of city planning, they will be ready to begin planning a model city as a cooperative class project.

Procedure

1. Divide the class into four to six small groups and give each group an aerial photo or map and a felt pen or a marker. Ask each group to look for any natural boundaries that determine a city’s placement and planning.
2. Have students list as many different kinds of businesses as possible and establish priorities for which buildings should and other elements are the most pertinent to their city’s needs and size. Then, the group should determine its overall building priorities and create a master list.
3. Groups should then consider the arrangement of buildings within the natural landscape and special features (overlooks, water, forests) in order to create a “sense of place.” Groups should then map out their proposed “Model City,” using the aerial photo or map as a template.
4. Have each group present its list and plan to the class for discussion. Encourage students to offer the reasoning behind their choices.
5. Have each group elect one member to represent the class on a Zoning Commission. The Commission will address controversy and resolve conflicts.
6. As the Zoning Commission makes its final determinations, have the class map out its “Model City” on the class aerial photo or map.

This activity is adapted from M. Abhau, R. Copeland, and G. Greenberger (eds.) *Architecture in Education* (Philadelphia: Foundation for Architecture, 1986). ❖

Sense of Place Bookshelf

By Dreux J. Watermolen, Bureau of Integrated Science Services

(For additional sense of place and land use-related resources, see the Winter 1998 (Vol. 15, No. 2) and Spring 2000 (Vol. 16, No. 3) issues of EE News.

Contact: EE News, Wisconsin DNR, P.O. Box 7921, Madison, WI 53707, e-mail: hutchj@dnr.state.wi.us, (608) 266-6790.

General Books and Pamphlets

Beyond Ecophobia: Reclaiming the heart in nature education. David Sobel. The Orion Society and The Myrin Institute, Barrington, MA. 1996. This is an education resource for parents and teachers. The author emphasizes well-planned and thoughtful environmental education to affect change. He discusses various teaching practices that foster the courage and insight needed to face environmental issues with creative, emotional, and intellectual tools.

Citizen Surveys: How to do them, how to use them, what they mean. Thomas I. Miller and Michelle Miller Kobayashi. International City/County Management Assoc., Washington, DC. 2000. Citizens should be involved in shaping their places. This book is a clearly laid out, easy to follow "how-to" manual to guide planners in the use of survey tools. It is also a good resource for citizen activists.

Habitat Protection Planning: Where the wild things are. Christopher Duerksen, Donald Elliott, N. Thompson Hobbs, Erin Johnson, and James Miller. Planners Advisory Service, American Planning Assoc., Chicago. 1997. This report provides concrete suggestions for protecting habitat through community planning and land use decision-making processes. It is written for planners, but is of use to citizen activists.

Inside City Parks. Peter Harnik. Urban Land Institute and Trust for Public Lands, Washington, DC. 2000. This book focuses on the core cities of 25 of the 27 largest U.S. metropolitan areas. Each park system is described in depth with words and pictures. Find out where the largest city park in America is.

Partnerships in Communities: Reweaving the fabric of rural America. Jean Richardson. Island Press, Washington, DC. 2000. With an ecological and environmental perspective, the author outlines a comprehensive process to help rural communities reach their vision of "sustainable community."

Planning in Plain English. Natalie Macris. American Planning Association, Chicago. 2000. This book identifies barriers that keep professional planners from communicating clearly. It is a style guide, tutorial, and tool kit.

Privately Owned Public Space: The New York city experience.

Jerold S. Kayden, the New York City Department of City Planning, and the Municipal Art Society of New York. John Wiley & Sons, New York. 2000. This book demonstrates how privately owned open spaces can contribute to more open and attractive cities. The book examines a full range of these spaces and invites participation.

Restoring Nature: Perspectives from the social sciences and humanities. Paul H. Gobster and R. Bruce Hull. Island Press, Washington, DC. 2000. A collection of 14 papers from the conference "Restoration and management of Nature." Much of the discussion is based on controversies surrounding the restoration of natural areas in the greater Chicago area.

The Geography of Childhood: Why children need wild places. Gary Paul Nabhan and Stephen Trimble. Beacon Press, Boston, 1994. This collaborative book investigates how children come to care deeply about the natural world. The authors ask searching questions about what may happen to children denied exposure to wild places -- a reality for more children today than at any other time in human history. The book delves into child psychology, education and ethnography. The book urges adults to rethink our children's contact with nature.

The Spaces Between Buildings. Larry R. Ford. Johns Hopkins University Press, Baltimore. 2000. This book is part of the Center for American Places series on "space, place and time." With a non-architectural approach, the author discusses three kinds of open areas: "enclosers of space," "shapers of space," and "shapers of access."

Children's Literature

Fighting for the Forest. Gloria Rand. Henry Holt and Co., New York. 1999. This is a story about a young boy and his dad faced with the question "What do you do if people want to destroy your own special place in nature?" It has been called "a bittersweet, cautionary, and ultimately inspirational story." (Ages 7-12)

Life in a Garden. Janet Halfmann. Creative Education. 2000. Take a close up look at beetles, ladybugs, spiders, slugs, and other critters. This book discusses camouflage, metamorphosis, and more. (Ages 9-12)

Livingston Mouse. Pamela Duncan Edwards. HarperCollins Publishers, Inc., New York. 1999. This story follows an adventurous mouse as he goes searching for the perfect furnishings for his home. (Ages 3-7)



Mammalabilia. Douglas Florian. Harcourt Brace & Co. 2000. These poems are "funny, furry, silly, and laugh-out-loud great" -- from the rhebok in tennis shoes (guess what brand) to the aardvark in the daark. (Ages 7-12)

The Everglades. Jean Craighead George, with Paintings by Wendell Minor. HarperCollins Children's Books, New York. 1997. A Seminole storyteller leads a group of children in a dugout canoe through the "River of Grass" where they learn of its creation. The children journey through the Everglades "living kaleidoscope of color and beauty" in a remarkable adventure with birds and alligators, fish and turtles, panther and deer, and a "colorful cathedral window" of orchids. (Ages 7-12)

Curriculum Materials

Architecture in Education: A resource of imaginative ideas and tested activities. Marcy Abhau, Rolaine Copeland, and Greta Greenberger (Eds.). Foundation for Architecture, Philadelphia. 1986. (Grades K-12). This collection of activities covers a variety of perceptual, social, and technological issues as they relate to the built environment. Activities are organized to present a coherent, cumulative series of activities appropriate for science, math, social studies, language arts, and art classes. Activities include extensions and variations and are highly adaptable.

Backyard Science Experiments. Barbara Saffer. Lowell House. 2000. (Grades K-3). This collection of science inquiry activities (Can you get drinking water from soil? Can plants prevent runoff? Etc.) focuses on spaces close to children's homes. Activities are adaptable to the classroom. (\$3.95)

Beginning Experiences in Architecture: A guide for the elementary school teacher.

George E. Trogler. Van Nostrand Reinhold Company, New York. 1972. (Grades K-8). This book is an excellent resource for teachers who have not thought previously about addressing architecture in the classroom.

Community Connections. Ginny Graves. Center for Understanding the Built Environment. 2000. This guide provides the "how to's" for community organizations looking to build collaboration and community spirit. It includes 10 activities and reproducible worksheets. (\$14.95).

Environmental Education at the Early Childhood Level. R. Wilson (Ed.). This book explores the "goodness of fit" between EE and early childhood education, and provides guidelines, suggestions, and specific examples of quality EE experiences for pre-school children. 1994, 126 pp. ISBN 1-884008-14-3. Cost: \$24 nonmember/\$18 NAAEE member. Order using the online form found at: NAAEE Publications & Membership Office, 410 Tarvin Road, Rock Spring, GA 30739, call (706) 764-2926, or e-mail: email@naaee.org.

Earth Tales from around the World. Michael J. Caduto. Fulcrum Publishing, Golden, CO. 1997. This book includes a collection of stories from 40 countries grouped into ten sections that explore Earth and our relationship to it. At the end of each section is a discussion of the lessons from each story. (\$17.95).

Field Guide to Community Based Experimental Science Education. Sigurd Olson Environmental Institute, Ashland, WI. (Grades K-12). This activity guide discusses how to plan, implement, and evaluate activities to improve science education in conjunction with field trips to local natural resources sites. Available for \$18.00 from the Sigurd Olson Environmental Institute (715) 682-1491.

Greening School Grounds. Tim Grant and Gail Littlejohn. Green Teacher. Schoolyard gardening promotes hands-on interdisciplinary learning through hands-on activities that benefit schools and increase green space and biodiversity in communities. This teacher resource offers schoolyard project ideas, ideas for enhancing learning, and unique designs to fit needs from rooftops to multicultural gardens. Use practical tips on minimizing vandalism, maximizing participation, and fundraising. Cost: \$16.95. Contact: Green Teacher, PO Box 1431, Lewiston, NY 14092, (416) 960-1244, or by e-mail at: greentea@web.net, or visit their Web site at: <http://www.greenteacher.com>.

A Guide to Careers in Community Development. Paul C. Brophy and Alice Shabecoff. Island Press, Washington, DC. 2000. (Grades 10-12). This book describes the many different kinds of community development jobs available, ranging from community organizing, to financing housing and new businesses, to redeveloping brownfields. It offers advice on how to break into the field along with guidance for career advancement and lateral movement. Detailed appendices list job descriptions with

salary ranges, universities and colleges offering community development-related curricula, Internet resources, volunteer positions, and more.

I Know that Building!: Discovering architecture with activities and games. Jane D'Alelio. National Trust for Historic Preservation, Washington, DC. 1989. (Grades K-8). This "workbook" includes thirty projects for developing a better understanding of architecture. Most can be adapted easily for classroom use and can supplement other activities.

Infusing the Ojibwe World View into the Science Curriculum. Sigurd Olson Environmental Institute, Ashland, WI. (Grades 3-6). This activity guide includes stories and activities to assist in our search for a relearning of place within the natural world and an enlivening of science. Available for \$20.00 from the Sigurd Olson Environmental Institute (715) 682-1491.

Map Making with Children: Sense of place education for the elementary years. David Sobel. Applications for social studies, science, language arts, and mathematics. Activities foster ecological literacy and provide hands-on experiences. A strong emphasis is placed on the development of map-making projects that begin in the student's own backyard and systematically radiate out to the local community. This field guide encourages a child's outdoor explorations and shows you how to enhance visual literacy at all levels. Applications for social studies, science, language arts, and mathematics. #EE-6654A. Cost: \$24.50. Available from Acorn Naturalists online at: <http://www.acorn-group.com/contents.htm> or by at: 17821 East 17th Street, #103 Tustin, California 92780, phone: (800) 422-8886.

Land Use Planning Education Project. Riveredge Nature Center. This high school curriculum focuses on land use planning issues in southeastern Wisconsin, utilizing GIS as a classroom tool. The project strives to produce critical & creative thinking, and develop problem solving skills for students. Land use and growth issues have a new urgency in Wisconsin with the advent of "Smart Growth for Wisconsin" where all local land use decisions must be based on a comprehensive plan for each community by 2010. Communities will need a citizenry educated in the fundamentals of land use planning. This program uses an interdisciplinary approach to educate and broaden students' understanding of the importance of planning for the long-term economic and ecological health of all communities. Students in both science and social studies classes learn sound land use planning principles and have the opportunity to apply their new skills on real-life, land use issues of regional significance. Teachers in southeast Wisconsin are eligible. Contact Riveredge Nature Center, 5548 W Hawthorne Drive, PO Box 26, Newburg, WI 53060-0026, call (262) 375-2715, e-mail: education@riveredgenc.org, or visit their Web site at: <http://www.riveredgenc.org>.



Web Resources

The following organizations are concerned with various aspects of a sense of place. Check out their Web sites to learn more about the organizations. Some sites include information on educational and career opportunities.

1000 Friends of Wisconsin
<http://www.1000friendsofwisconsin.com/>

Associated Builders and Contractors of Wisconsin, Inc.
<http://www.abcwi.org>

Association of American Geographers
<http://www.aag.org>

Center for Understanding the Built Environment
<http://www.cubekc.org>

Gathering Waters Conservancy
<http://www.gatheringwaters.org>

Green Map System
<http://www.greenmap.org>

Master Builders Association of Wisconsin
<http://www.buildacea.org/main.htm>

National Trust for Historic Preservation
<http://www.nationaltrust.org>

Project for Public Spaces, Inc.
<http://www.pps.org/>

Trust for Public Land
<http://www.tpl.org/>

Urban Open Space Foundation
<http://www.uosf.org>

U.S. Department of Housing and Urban Development
<http://www.hud.gov/>

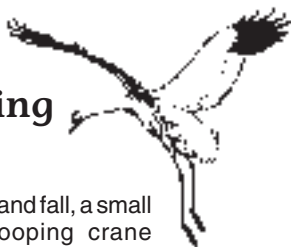
UW Program on Agricultural Technology Studies (PATS) Town Land Use Databooks
<http://www.wisc.edu/pats/landuse>

Wisconsin Department of Commerce—Main Street Program
<http://www.commerce.state.wi.us/CD/CD-bdd-overview.html>

Wisconsin Landscape Federation
<http://www.wislf.org> ❖

Winter News & Events

A Whooping Success



This summer and fall, a small band of whooping crane chicks were successfully raised and fledged from Necedah National Wildlife Refuge in Necedah, Wisconsin. Radio tracking bands were placed on the bird's legs to monitor migration patterns. In September the birds learned to fly from biologists who donned a crane costume and taught the birds to fly using an ultralight airplane. On October 17, the small flock of eight young whooping cranes lifted off from Necedah National Wildlife Refuge in Wisconsin shortly after dawn led by three ultralight aircraft. The young whooping cranes were shown a route to wintering grounds at Chassahowitzka National Wildlife Refuge in Florida. The trip was met with many challenges. The cranes are expected to return on their own in the spring of 2002. The migration team used sandhill cranes in 2000 to successfully prove that cranes could be shown a route and return on their own. To learn about the their historic migration and to view photos, visit the partnership Web site at: <http://www.bringbackthecranes.org/> ♦

Guarding Wisconsin's Groundwater



The Groundwater Guardian program is a national effort to connect and recognize communities that take action to protect groundwater and educate the public about groundwater.

It is sponsored by the Groundwater Foundation in Lincoln, Nebraska. The program has come to Wisconsin and will be coordinated by Denise Kilkenny-Tittle. The program is located at the UW-Extension Central WI Groundwater Center in the College of Natural Resources at UW-Stevens Point. This program was made possible by a \$33,100 grant from the Wisconsin Department of Natural Resources.

"Groundwater supplies drinking water for 95% of Wisconsin communities," Kilkenny-Tittle says, "But we're seeing increasing problems for some communities with groundwater quality. In addition, some communities are faced with declin-

ing water levels in their wells. So it's natural that people would want to come together to help protect groundwater, and the Groundwater Guardian program is an easy and organized way to do that."

The program is designed to recruit new communities into the program and facilitate communication among the seven Wisconsin Groundwater Guardian communities already in existence including Eau Claire County, Chippewa Falls, Marathon County, Waukesha, Green Bay, Portage County, and Marshfield.

For more information on the Groundwater Guardian program, contact Denise Kilkenny-Tittle at (715) 346-2722, or e-mail her at: dkilkenn@uwsp.edu. ♦

Presenting Easy Breathers

"... it's not about a single magic bullet, one size fits all. It's about you *each* choosing to do one *little* thing that paints the bigger picture. Fit just one small piece into the puzzle. We are all connected..."—Grid Guy (a.k.a. Marshall High student Donte Pettis)

The new Easy Breathers program teaches that people impact the world with every choice that is made. It specifically focuses on transportation issues and how daily choices can affect the air we breathe. Department of Natural Resource educators, Milwaukee teachers, their students, and multimedia pros, Media Makers, Inc., worked together over the past year to create a new video and Web site package that teaches teens how transportation choices affect air quality. It focuses on everything from taking ultra-light rail vehicles to checking your car's tire pressure. Marshall High School students traveled across the country to examine what transportation choices other people are making. They learned about hybrid cars, fuel cells, other alternative fuels, and how to talk to their peers about air pollution. The project's "let kids lead" approach had students acting, scripting, and helping to produce and edit the final product.

The secondary education package will be released this winter. To learn more about the project or request a *free* copy of the video, visit and bookmark the Easy Breathers Web site at: <http://www.easybreathers.org>. The Web site content will evolve when the final site is launched, but the Web site address will stay the same. Contact: Mittsy Voiles at the DNR, P.O. Box 1921, Madison, WI 53707, (608) 264-9258, or by e-mail at: voilem@dnr.state.wi.us. ♦

Conservation School Opens in Wisconsin

Conserve School is a new coeducational college preparatory boarding school for students in grades 9-12. It is located in Land O' Lakes Wisconsin on 1,200 wooded acres. This independent, nonsectarian school places an emphasis on environmental stewardship, ethics and leadership, and innovative uses of technology. Conserve School opened in the fall of 2001 and hopes to recruit students from across the United States.



The school offers an integrated program with an interdisciplinary, experiential curriculum and outdoor activities. Conserve School hopes to prepare students not only for college, but also for active citizenship throughout their adult lives. One of their goals is for graduates to be future leaders who will be stewards of the environment, capable of developing creative, ethical solutions for 21st century global sustainability issues. The school emphasizes problem solving, the process of idea creation and innovation, and the applications of cutting-edge technology.

This secondary curriculum is unique and uses Master's-level teachers who are both experts in their fields and versed in a variety of instructional techniques. The curriculum is project-oriented, high-tech, interdisciplinary, grounded in great books and original works of many cultures, participatory, relevant, focuses on learning in the outdoors, and is student-centered. Some of the issues that are addressed in the curriculum include: water quality, bioengineering, erosion and desertification, global warming, antibiotic inefficiencies, deconstruction laws and processes (making constructed waste harmless), recycling nuclear waste, accelerated evolution, biological warfare, alternative fuels, and more.

Conserve School is governed by a five-member board comprised of the top executives of Central Steel & Wire Company along with an Educational Advisory Council (EAC). The council members are international experts from various disciplines who provide advice and suggestions for long-term educational strategies and emerging trends of the 21st century. Contact Conserve School at 5400 N Black Oak Lake Rd, Land O' Lakes, WI 54540, (715) 547-1300, e-mail: Information@ConserveSchool.org, or visit their Web site at: <http://www.conserveschool.org>. ♦

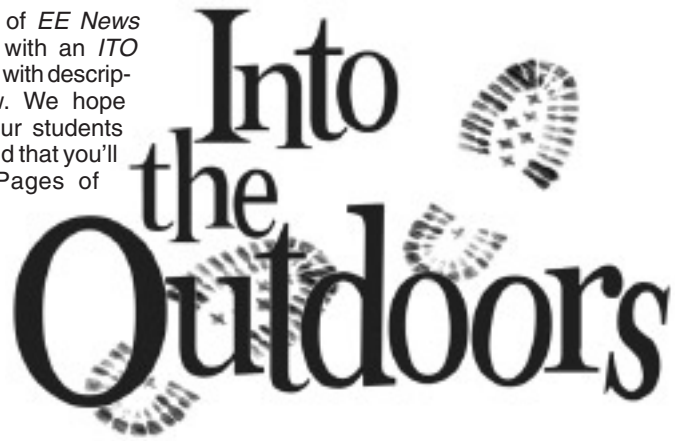
Get Ready for Season Two of Into the Outdoors

Join Annie, Henry, Mac, and friends for season two of the children's television show *Into the Outdoors (ITO)*—a 2001 Emmy award winning program. The show takes you on outdoor adventures throughout Wisconsin to learn about our natural resources. Join Girl Scouts in Madison as they participate in a storm drain stenciling project; watch as endangered whooping cranes learn to fly; learn how to make an ice wreath and go on an archeological dig. All these adventures and more await you this year on *Into the Outdoors*.

In late October, the Chicago/Midwest Chapter of the National Academy of Television Arts and Sciences announced that *Into the Outdoors* was selected as the Outstanding Achievement award winner for Children's Programming for a Children's or Teen Series.

Inside this issue of *EE News* you'll find a poster with an *ITO* show schedule along with descriptions of each show. We hope you'll encourage your students to watch the show and that you'll visit the Teacher Pages of *EEK!* to find teaching activities that correspond with the show.

Into the Outdoors is brought to you by the Wisconsin Department of Natural Resources and Discover Wisconsin Productions of St. Germain, WI. ♦



Celebrate the Earth



Advertise your support of the Earth and all its wonders; join the over 900 schools and organizations that have been a part of the Department of Natural Resources Earth Day celebration. This year's theme is "It's a Wonderful World!"

Who can participate:

Schools, classrooms, nature centers, 4-H groups, scouts--anyone working with youth--are invited to participate.

How:

Participants select an action project or environmental topic to study. Educators are encouraged to use Project WILD or Project Learning Tree environmental education activities while conducting their Earth Day project; however, projects are not limited to the topics in the guidebooks.

When:

Projects may be ongoing or can occur anytime during the 2001/2002 school year. All registration materials are due by March 1, 2002. Flags and banners will be mailed out in time for Earth Day on April 22.

Registration fee:

Registered participants receive a beautiful, limited edition, indoor/outdoor 2002 Earth Day flag or banner to fly high on the anniversary of Earth Day, April 22 (pictured above).

Flags, 3x5 = \$30

Banners, 2x3 = \$20 ♦

For more information:

Request an Earth Day packet containing entry forms, suggested topics for study, and ideas for action projects. Call (608) 267-2463, e-mail: jelenc@dnr.state.wi.us, or send the form below to: 2002 Earth Day Project, Project WILD/PLT, DNR, CE/6, PO Box 7921, Madison, WI 53707-7921.

Name

School/Organization

City

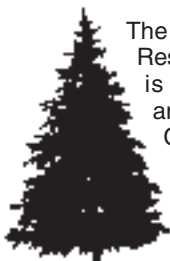
State

Zip

E-mail

Daytime phone

2002 Arbor Day Poster Contest



The Department of Natural Resources Forestry program is sponsoring the tenth annual Arbor Day Poster Contest for all state fifth Graders this 2001–2002 school year. The contest is part of a national competition sponsored by the National Arbor

Day Foundation and is the culmination of an Arbor Day curriculum unit that will be sent to each fifth grade teacher. Over 1300 students in 62 schools participated in the 2001 contest where Brady Cullen of Weyauwega Elementary School took top state honors!

The 2002 theme will be "Trees are Terrific ... inside and out!"

Contest Rules

The artwork must be original and signed by the artist. It may be created in marker, crayon, watercolor, ink, acrylic or tempera paint. The brighter colors make the best poster! It must be no larger than 14"x18" and no smaller than 9"x12".

Only one poster may be submitted by each school, so a school contest is necessary. Judging guidelines are included in the curriculum package. The poster entry deadline is February 19, 2002.

Awards are given to the top three posters in the state and the first place poster is forwarded to the national competition. The first, second, and third place winners are presented with plaques and savings bonds of \$100, \$75, and \$50 respectively and their teachers are honored with books at an award ceremony in Madison on Arbor Day 2002. The Wisconsin Arborist Association donates these awards. Each winner also will receive a landscape tree to be planted at their school or in their community, donated by the Wisconsin Nursery Association.

A calendar featuring the top twelve 2002 posters will be made for the year 2003 to share the students' artwork with the state and the top three posters will be posted on the DNR's EEK (Environmental Education for Kids) Web site: <http://www.dnr.state.wi.us/eeek/>.

One copy of the contest and curriculum materials, addressed to "fifth grade teacher," were sent to all public and private elementary schools in October 2001. Additional copies are available by writing Arbor Day Poster Contest, PO Box 7921, Madison, WI 53707 or by e-mail at: rideor@dnr.state.wi.us ♦

Calling all Tradition-Keepers: Winter Workshop 2002

Mark your calendars for WAEE's annual Winter Workshop scheduled for February 1-3. It will be held again this year at the beautiful Treehaven Natural Resources Education and Conference Center in the north woods near Tomahawk. The Winter Workshop is noted for its fun and relaxed atmosphere, good food, skiing and snowshoeing, homemade music, camaraderie and spirit of winter celebration.

This year's theme, "Keepers of Tradition," will focus on preserving environmental education-related traditions of outdoor skills and knowledge, words and images, and effective teaching. Keynote speakers include Dick Schneider, Professor and author of books on Indian crafts including *Crafts of the North American Indians* and Greg Weiss, Coordinator of the Native Ways Association. Friday workshops will include Porcupine Quill Embroidery and Creative Exploration of Nature with Young Children in Winter. Enjoy weekend sessions such as Ice Age Trail Curriculum, Creative



Writing, Winter Ecology Journal, Willow Basketry, Geodome, and Sand County Memories Curriculum along with many others.

For further information on Winter Workshop 2002, visit the WAEE Web site at: <http://www.uwsp.edu/cnr/waee/>. To register, contact Mary Pardee at (715) 346-4978, by e-mail at: mpardee@uwsp.edu, or contact David Eagan at (608) 249-0409. ♦

Northern Landscapes: Connecting People with Nature

An Environmental Education Conference for Northern Wisconsin

March 21–23
Telemark Resort, Cable, WI

This special northern environmental education conference is sponsored by the Upper Chippewa Basin Partner Team through a 2001–2002 WEEB Grant. The spring gathering is designed to bring together "formal" (classroom) and "non-formal" educators (i.e. naturalists, resource professionals, etc.). Once together, they will learn about and share their unique knowledge and experiences with teaching students about Northern Wisconsin's ecosystems.

The tentative schedule for the conference includes half-day field trips and workshops on Thursday, with a dinner and social/reception to follow. On Friday, participants begin the day with a keynote speaker and will choose from more field trips and workshops or concurrent sessions in the afternoon. Poster sessions and exhibits will also be available.

In the evening, participants can enjoy programs on the Voyageurs and Native Americans. Saturday's schedule includes morning sessions, action planning and facilitated groups, followed by a keynote speaker and lunch.

For more information, visit their Web site at: <http://clean-water.uwex.edu/upperchip/EE%20Conf.htm> or contact the planning committee members with a specific question: Sherry Klosiewski, Department of Natural Resources, (715) 365-8966; Sue Benson, Cable Natural History Museum, (715) 798-3890; or Matthew Davis, UW-Extension, (715) 532-6322. ♦





Reusing Computers for Education

Established in 1996, the Computers for Learning program places reusable computers in classrooms and prepares children to contribute to and compete in the 21st century. The program transfers excess federal computer equipment to schools and educational nonprofit organizations, giving special consideration to those with the greatest need. The program is open to public, private, parochial, or home school serving pre-kindergarten through grade 12 students. An educational nonprofit group is eligible if it is classified as tax-exempt under section 501(c) of the United States tax code and serves pre-kindergarten

through twelfth grade students. Special consideration will be given to schools and educational nonprofit organizations in Federal empowerment zones and enterprise communities (areas of pervasive poverty and unemployment). To see if your school is located in one of these areas, visit <http://www.ezec.gov/>.

This executive order includes equipment such as IBM compatible PCs, Apples and peripheral equipment such as printers, modems, routers, and servers. The program determines equipment transfer based upon need and encourages the use of nonprofit computer reuse or recycling programs to repair and upgrade computers and assist with teacher training.

The Computers for Learning Web site, <http://www.computers.fed.gov>, allows schools to request equipment online, learn how to create a plan for computer needs, find assistance with upgrades from computer recyclers, and connects teachers to a national volunteer technical support network. ♦



New WEEB Grant Opportunities

The Wisconsin Environmental Education Board (WEEB) grant program has been expanded to include two new components: a mini-grant program and a WI Focus on Energy grant program. The WEEB continues to administer the previously available forestry education grant program and general environmental education program. The 2001–2003 state budget authorized funding allocations for the 2002–2003 grant program at \$390,000 for forestry education grant projects, \$180,000 for WI Focus on Energy projects and \$30,000 for general environmental education projects (all other topic areas).

The mini-grant program is restricted to novice grant writers (project directors and principle grant writers that have not previously received a WEEB grant). The WI Focus on Energy grants are restricted to energy education projects where the applicant, and the majority of the target audience, purchase electric service from a utility that participates in the state-wide WI Focus on Energy program. Please note that applicants who do not purchase electric service from a participating utility should apply under the "general" environmental education grant program.

Grant applications are due on January 12, 2002. For your convenience, WEEB has provided detailed information about the new components and the grant application form on their Web site found at: <http://www.uwsp.edu/cnr/weeb/>. Contact WEEB at 110 College of Natural Resources, UW-Stevens Point, Stevens Point WI 54481, (715) 346-3805. ♦

C.D. Besadny Conservation Grants Available

The C.D. Besadny Conservation Grants Program supports grassroots environmental education efforts—people working at the local or statewide level who need a relatively small amount of money (\$1,000 or less) to implement

a program. Grants are awarded to organizations, schools, individuals, and government for education, restoration, management, and applied research activities related to Wisconsin's natural resources.



Natural Resources Foundation of Wisconsin

Caring For Our Corner of the Earth

Applicants are required to match grant moneys on a one to one basis with funding from their budget, other outside funding, or in-kind goods or services. Grants range from \$100 to \$1,000 and are awarded in March. Applications

must be received by January 18, 2002.

Applications are available online at: <http://www.nrfwis.org>, or can be obtained by contacting the Natural Resources Foundation, P.O. Box 2317, Madison, WI, 53701, call toll-free at (866) 264-4096, or e-mail: conservation@nrfwis.org. ♦

Thirteenth Annual Forest Appreciation Week Writing Contest

Each year the Department of Natural Resources Forestry Division encourages fourth grade students across Wisconsin to think and write about forests and trees through the Forest Appreciation Week

Writing Contest. The year 2002's theme is "The Forests in Our Lives." Encourage your students to write about the amazing contributions that forests provide to them on a daily basis. Students should describe how they used the forest today, look ahead in time and list their wishes for future healthy forests.

Contest requirements can be found in the 2002 packet which will be mailed

to fourth grade teachers in late January. The first, second and third place winners will be presented with savings bonds of \$100, \$75, \$50 and a tree. Entries must be postmarked by **March 8, 2002**. For more information contact: Forest Appreciation Week Writing Contest, Wisconsin DNR, Bureau of Forestry, PO Box 7921, Madison WI. 53707-7921 or e-mail: fannug@dnr.state.wi.us. ♦



EEK! For Teachers

EEK!—Environmental Education for Kids

<http://www.dnr.state.wi.us/eeek/>

This winter on EEK!, you and your students will find the following....



Our Earth

Protecting the Wild Ones —Whooping Cranes

Follow the young whoopers that were brought to Wisconsin this summer after last year's successful migration test on sandhill cranes. This fall the whoopers migrated to Florida. Come and read about their journey.

Ice-on

Help track when Wisconsin's lakes freeze over by filling out EEK's Ice-on survey.

Nature Notes

Snug in the Snow

What happens to animals when the days get shorter and the snow starts to fly? Some animals head underground for a long winter's nap. You can read about all about hibernation this winter on EEK!

Winter Bird Feeding and Wisconsin's Favorite Winter Birds

What's a good way to add some color and activity to your yard this winter? Try winter bird feeding. You can read all about the birds you're likely to see and what to feed them.

Let it Snow

Find out about the different kinds of ice crystals that we call snow.

Elk in Wisconsin

Did you know that there are elk back in Wisconsin? Well there are. You can read all about it and see some great elk pictures on EEK!

Get a Job

Fish Doctor

Sue is a "fish doctor." Come find out what she does and how she figures out when fish are sick.

Cool Stuff

Books for a Cold Winter's Day

It's snowy and cold. Why not curl up with a good book? EEK's got some suggestions.

Make an Ice Wreath

Visit EEK! for instructions on making an ice wreath to hang outdoors. It looks great and the neighborhood birds will love it.

Places to go Snowshoeing

Do you want to try snowshoeing but don't know where to go. EEK! can help you find places that rent snowshoes.

Winter Scavenger Hunt

Put on your snow boots and head outdoors to see if you can find all the things on our winter scavenger hunt.

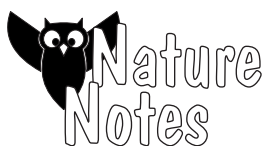
Teacher Pages

ITO Pages

Get ready for season two of *Into the Outdoors*—an Emmy award-winning TV show. New shows begin in January. You'll find information and show times on the poster inserted in this issue of *EE News*. EEK's Teacher Pages will provide you with an activity to go along with each show.

Earth Day Project

It's never too early to start planning for Earth Day. All schools, classrooms, nature centers, 4-H groups, scouts, and other student groups and organizations are invited to participate in the Department of Natural Resources' Eighth Annual Earth Day Project. Participants earn an Earth Day flag by selecting an environmental topic to study during the school year and completing an action project that benefits the environment. For details on the project go to: <http://www.dnr.state.wi.us/org/caer/ce/eeek/teacher/earthday.htm> ❖





State Model Academic Standards and PLT

Through the talents of Beth Mittermaier and the guidance of the PLT Staff and Advisory Committee, the correlation of the PreK-8 PLT Activity Guide to the State Model Academic Standards is now complete. The project was supported by a 2000 Wisconsin Environmental Education Board grant.

The project started with preservice teachers and graduate students at UW-River Falls and UW-Stevens Point. The students provided sample models and correlations when they used the PLT guide in their classes. With input from the PLT Advisory Committee, Beth took the ideas and started the task of correlating 96 PLT activities with several hundred performance standards. The result is a comprehensive tool for educators to use when selecting PLT activities to connect with the teaching of the performance standards. The activities are correlated to Science, Social Studies, English Language Arts, Math, and Environmental Education.

The PLT Correlations are available on the PLT/WILD Web site under "Educational Resources" in a PDF format. They are also available in print by requesting a copy from Betty Prescott at (608) 264-6282, e-mail at: prescb@dnr.state.wi.us, or write to the PLT/WILD address above.

In addition, the WEEB grant also provided support for developing a correlation template for the Wisconsin Model Academic Standards for Math, Social Studies, English Language Arts, Science, and Environmental Education. The template will assist educators in correlating a set of teaching activities to the standards. If you are interested in using the template, please contact Al Stenstrup. ♦



Project WILD/Project Learning Tree

P.O. Box 7921
Madison, WI 53707
<http://www.dnr.state.wi.us/org/caer/ce/pltwild/>

Al Stenstrup
State Coordinator
(608) 264-6282
stensa@dnr.state.wi.us

Cindy Jelenchick
Assistant Coordinator
(608) 267-2463
jelenc@dnr.state.wi.us

Betty Prescott
Program Assistant
(608) 264-6280
608-264-6280
prescb@dnr.state.wi.us

PreK-8 PLT Activity Guide Revisions for 2001

The 2001 PreK-8 PLT Environmental Education Activity Guide has one new activity and several new storylines that highlight energy and society. The new activity is called *In the Driver's Seat*. In this activity, students learn about gasoline, then explore fuel conservation and energy efficiency by simulating the distance they travel on a set amount of gasoline using different vehicles. This activity will be featured in the fall 2001 *Branch* Newsletter from the national PLT office.

The two new storylines link 14 updated and enhanced PLT Activities that have an energy connection. One storyline focuses on renewable and non-renewable energy. The second storyline has an emphasis on human use of energy and the short and long term social, economic, environmental and health impacts.

It was great to have several Wisconsin educators involved in field testing the revised activities. The following teachers were involved: Jeanine Staab of Medford,



Peter Watts and Frances Milburn of Watertown, and Karen Buchs of Genoa City. Thank you for participating in the revision process.

Other resources from the Energy & Society Program will include a music and dance video from Billy B (available November 2001), and a poster series and teacher guide (available January 2002). Gail Epping of the Leopold Nature Center and Al Stenstrup have been on the National Advisory Team for the Energy and Society Program.

A major revision of the PLT guide started this summer with a writing conference held in West Virginia. This revision is expected to be completed in one to two years. ♦



PLT for Seedlings

The development of a new Project Learning Tree (PLT) Early Childhood Program, designed for ages 3-6, is off and running. Funded by a \$14,000 grant from the Wisconsin Environmental Education Board (WEEB), the Early Childhood Program will consist of approximately ten revised PLT activities incorporating music, literature, and art.

The PLT staff is currently evaluating and rewriting activities along with an Early Childhood Committee composed of WILD/PLT facilitators, early childhood teachers, art, music, literature, and writing specialists.

Interested in a first-hand view of the materials? We're looking for early childhood educators interested in attending early childhood workshops in 2002. For more information or to get on the workshop list, call or e-mail Cindy. ♦



News From the Wisconsin Association for Environmental Education

233 Nelson Hall
University of Wisconsin-Stevens Point
Stevens Point, WI 54481
715-346-2796
www.uwsp.edu/wae/

Meet Board Member Dr. Michael J. Flitter

A practical environmental educator; an insatiable curiosity about the world around him; untiring advocate of Leopold's land ethic; or, intense defender of education about our environment, can all be used to describe Mike Flitter.

Mike has been a lifetime member of WAE and NAAEE for most of his professional life. He is one of the first ten life members of NAAEE. He is currently finishing his last year as a WAE Board Member. During this tenure he has served as the liaison for WAE to NAAEE. Additionally Mike was on the membership committee and is now a member of the networking committee. As liaison to NAAEE, he has contributed to strengthening the affiliates partnership through participation in various workshops, including the 30th Annual NAAEE Conference.

Currently Mike is affiliated with PKI—International—Thinking Like A Mountain Institute. The major goal of this non-profit organization is to promote clean and safe water through education and practical, small-scale projects in Africa. The organization also sponsors workshops and other meetings to bring people together to holistically look at environmental issues.

Mike's deep appreciation and devotion to the environment and our natural world is reflected in his spiritual life; he is a part of the Secular Franciscan Order, and the North American Coalition for Christianity and Ecology (NACCE). With NACCE he is a member of the Board and Vice President. Mike has an impressive resume of published materials and presentations—he is truly a "renaissance man" for our natural world.

In addition to these professional undertakings, Mike volunteers in his community of West Bend. He is a naturalist for a large conservation area, Lac Lawrann Conservancy. He guides groups of young children on a discovery of the world around them and brings his enthusiasm for our earth to eager young people. Mike doesn't call them kids—they are "small people." Additionally he works with the Ice Age Trail in Southeastern Wisconsin on site selection and maintenance.

Over the past year Mike has battled cancer, multiple myeloma, which now is in remission and survived emergency surgery to repair lesions in his intestines caused by medications. An environmental educator in every aspect of his life, Mike has influenced positively many peers and others on the extraordinary wonders of everyday things around us. ♦

Meet Christy, WAE's Assistant

WAE is excited to introduce to you our new assistant, Christy Allar. Christy has been our staff person since January, 2001. She lives with her husband and two children, Cole, age 7, and Megan, age 5, in Wisconsin Rapids. Besides working to build a strong environmental education community in our state, Christy is also a real estate agent for the Wisconsin Rapids/Stevens Point area and a Mary Kay representative. In addition, she holds a paralegal certification. We are lucky to have such a diverse and talented individual with us! Christy finds working with WAE challenging and enjoyable. She is working to computerize our financial system, and handled the registrations and confirmations for the Midwest Environmental Education Conference (MEEC). Make sure to welcome her to WAE! Christy can be reached at (715) 346-2796. ♦

The Sigurd Olson Environmental Institute

Steve Sandstrom, Assistant Director, Sigurd Olson Environmental Institute

The Sigurd Olson Environmental Institute at Northland College works with citizens to build environmental awareness, encourages responsible action, and forge lasting solutions to environmental challenges in the Lake Superior region. To this end, the institute promotes protection and restoration of natural systems and processes, works with citizens to develop sustainable communities that are socially and environmentally healthy and interprets, preserves and promotes the legacy of Sigurd F. Olson.

Many of these programs meet more than one goal, but all the Institute efforts are united in the philosophy that awareness and understanding of our natural environment will lead to the decisions and actions needed to protect it. Institute programs focus on the protection and restoration of healthy northern forests and waterways. Through activities like LoonWatch and the Timber Wolf Alliance, they keep track of northern species that serve as sentinels of the health of entire sectors of the ecosystem. In cooperation with Northland College faculty and regional resource management agencies, the Institute also is taking a lead in gathering resources and sponsoring research on northern forest restoration. Other programs work with communities by conducting outreach education, organizing citizen participation, or bringing in technical expertise. To keep the legacy of Sigurd Olson alive, the Institute sponsors lectures, slide shows, programs for nature center audiences, professionals, and wilderness travelers. Other programs sponsored by the Institute include; Island School, a program for upper elementary students that takes place on the Apostle Islands; Lake Superior Studies, a program for teachers and students, and a variety of other environmental education and professional development activities.

For more information about the institute, please contact Steve Sandstrom, Assistant Director at (715) 682-1232 or by e-mail at: ssandstrom@northland.edu. Interested person can also write to Northland College, 1411 Ellis Avenue, Ashland, Wisconsin, 54806-3999. ♦

Bookshelf

General Books, Magazines, Posters

Amphibians of Wisconsin. Rebecca Christofel, Robert Hay and Michelle Wolfgram. One of the joys of spring in Wisconsin is hearing the wonderful choruses of early breeding frogs that signal the return of life following the long winter. This field guide introduces readers to full-color photos of Wisconsin's frog species, toads, and salamanders. It also provides breeding times to listen for the different calls, identification key, range maps, and how to help protect amphibians and regulations related to collection. Cost: \$4; discounts for volume purchases. Contact the DNR, Bureau of Endangered Resources, P.O. Box 7921, Madison, WI 53707-7921. Note: *Two copies of this guide have been provided to all private and public school libraries in the state as well as all public libraries.*

Checklist of the Vascular Plants of Wisconsin. Mark A. Wetter, Theodore S. Cochrane, Merel R. Black, Hugh H. Iltis, and Paul E. Berry. Wisconsin Department of Natural Resources 2001. This comprehensive 258-page report provides an annotated checklist of the known native and introduced vascular plants of Wisconsin, including synonyms, common names, and excluded taxa. To request copies of this publication please contact Martin Griffin and request publication number SS-192 2001 at: DNR Bureau of Integrated Science Services, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, (608) 266-0842, or e-mail: griffmp@dnr.state.wi.us.



Discovering Salmon: A Nature Activity Book. Nancy Field and Sally Machlis. This 32-page book provides activities for elementary and middle-level students. Topics range from the lifecycle of salmon, salmon habitat, role of fish hatcheries, biology, salmon in North America (including the Great Lakes), threats to survival, invasive species, fishing basics, and educational games. Cost: \$4.95. Order from a local bookstore or Dog-Eared Publications, P.O. Box 620863, Middleton, WI 53562-0863, (608) 831-1410.

Excellence in Environmental Education: Guidelines for Learning (K-12). National Association for Environmental Education. This book offers guidance for fostering and gauging K-12 environmental literacy. Provides students, parents, educators, home schoolers, administrators, policy makers, and the public with a model set of voluntary EE guidelines that

support other EE efforts by setting expectations for performance and achievement in 4th, 8th, and 12th grades; suggesting a framework for effective and comprehensive EE programs/curricula; demonstrating how EE can be used to meet standards set by the traditional disciplines; and defining the aims of EE. 1999, 107 pp. ISBN 1-884008-75-5. Cost: \$24 nonmembers/\$18 NAAEE members. NAAEE, 410 Tarvin Road, Rock Spring, GA, (706) 764-2926.

Fishes of Wisconsin. George C. Becker. This book is an encyclopedic reference guide to 157 fish species found in Wisconsin and much of the Great Lakes and Mississippi River. In addition to comprehensive species accounts, the guide includes many color photos, maps, and information on management of fisheries and water resources from an historical and practical policy perspective. Cost: \$100.00. Contact the University of Wisconsin Press at (800) 621-2736 or visit their Web site at: <http://www.wisc.edu/wisconsinpress/>.

Flickering Clusters. Edited by Cheryl Ney, Jacqueline Ross, and Laura Stempel. A blueprint for attracting women and minorities to careers in science. This documentation follows an innovative project designed to attract and retain women and minority students in science, mathematics, and engineering. Essays discuss *the Women and Science Project*, aimed to improve undergraduate science education by increasing faculty expertise in gender and science scholarship and pedagogy; providing role models of professional women scientists; improving the classroom and campus climate; and creating "science communities." Cost: \$16.95. Contact the University of Wisconsin Press at (800) 621-2736 or visit their Web site at: <http://www.wisc.edu/wisconsinpress/>.

Keepers of the Wolves. Richard P. Thiel. A story of the wonder, frustrations, humor, and everyday hard work of field biologists as they track the recovery of wild wolves. The author recounts ten years at the center of efforts to track and protect the recovery of wolves in Northern Wisconsin; tracking in the snow, howling in the forest, trapping techniques, radio collars, stories of individual wolves, politics, public relations, and monitoring wolf pack ranges from the air. Cost: \$19.95. Contact the University of Wisconsin Press at (800) 621-2736 or visit their Web site at: <http://www.wisc.edu/wisconsinpress/>.

Natural Landscaping. John Diekelmann and Robert Schuster. This second edition focuses on designing and establishing natural plant communities and natural ecosystems for school grounds and many other public and private properties. This book reviews landscaping principles and techniques, offers tips on reducing chemical use while combating invasive plants, addresses social, legal, design problems encountered on sites, and introduces species for various habitat types; grasslands, savannas, forests, edge areas, and small wetlands. Cost: \$24.95. Contact the University of Wisconsin Press at (800) 621-2736 or visit their Web site at: <http://www.wisc.edu/wisconsinpress/>.

Northbound: Prairies. Humans have been shaping southern and central Wisconsin landscapes for hundreds of years using fire as their main management tool. Fire is the theme in articles throughout this quarterly issue of Northbound magazine that features prairies, savannas, and barrens. This edition also features a story on prairie and barren restoration efforts that benefit endangered species. Single copies are free by calling (800) 838-9472, or visit the Trees for Tomorrow Web site at: <http://www.tressfortomorrow.com>.



Perspectives in Bioregional Education. Edited by F. Traina and S. Darley-Hill. For teachers, other educators, and anyone interested in the topics of bioregionalism and bioregional education. It includes the history and growth of bioregionalism, core concepts, bioregional education in schools, methods being used in the classroom, sample activities, and an extensive resource list. 1995, 176 pp. ISBN 1-884008-17-8. Cost: \$35 nonmember/\$26 NAAEE member. Order using the online form found at: <http://www.naaee.org/publications/pubform1101.pdf>, or write to NAAEE Publications & Membership Office, 410 Tarvin Road, Rock Spring, GA 30739, call (706) 764-2926, or e-mail: email@naaee.org.

River of Life: The Natural and Cultural History of a Northern River. John Bates. A guided exploration of the Manitowish River, a small river in northern Wisconsin, this book examines the sounds, smells, and sensations of a river. It also delves into current ecological studies, probes fur trader journals and archaeological surveys, and explores observations vividly describing the life of a northern river. Cost: \$24.95. Contact: Manitowish River Press, 4245 Hwy 47, Mercer, WI 54547, (715) 476-2828, e-mail: manitowish@centurytel.net.



Strategic Vision of the Great Lakes Fishery Commission for the first Decade of the New Millennium. Great Lakes Fishery Commission. This 40-page booklet is the new vision for the future of the Great Lakes Fishery. It provides an overview of the state of the fishery, outlines the key challenges and opportunities faced today, including healthy ecosystems, integrated management of sea lamprey, changes caused by increased threats from invasive species, pressures on habitat, and more. To obtain a copy, contact Marc Gaden at (734) 662-3209 x 14, or at Great Lakes Fishery Commission, 2100 Commonwealth Blvd., suite 209, Ann Arbor, MI 48105-1563. Or visit their Web site at: <http://www.glfc.org>.

Wild Turkey Ecology and Management in Wisconsin. John F. Kubisiak, Robert E. Rolley, R. Neal Paisley, and Robert G. Wright. Wisconsin Department of Natural Resources 2001. This booklet reviews Wisconsin's history of wild turkey ecology, management, and research in Wisconsin and summarizes related technical articles in an easy to read format. To order, request a copy of publication number SS-9552001 from Martin Griffin at: DNR Bureau of Integrated Science Services, 101 S. Webster St., PO Box 7921, Madison, WI 53707-7921, (608) 266-0842, griffmp@dnr.state.wi.us.

Spanish Environmental Education Publications. As a by-product of NAAEE and U.S. Peace Corps' work to distribute boxes collections of exemplary environmental education materials in Latin America, through the EPA-funded TEEM (Training & EE Materials—Capacitación y Materiales para la Educación Ambiental) Project, NAAEE is making some of the recently translated Spanish-language works available for purchase. Get yours while supplies last! Order using the online form found at: <http://www.naaee.org/publications/pubform1101.pdf>, or write to NAAEE Publications & Membership Office, 410 Tarvin Road, Rock Spring, GA 30739, call (706) 764-2926, or e-mail: email@naaee.org.

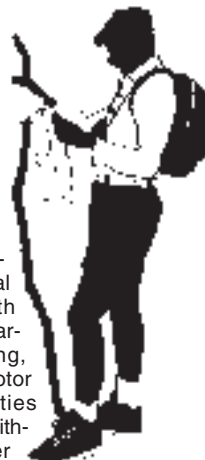
The EE Toolbox. University of Michigan. The Toolbox was developed with funding from the Environmental Protection Agency to help educators understand the steps and the resources available to develop an environmental education program as part of the school curriculum. It covers topics from defining environmental education, integrating EE into the school curriculum, to urban EE and using community resources. Cost: \$24 nonmember/\$18 NAAEE member; Toolbox booklets: \$16 nonmember/\$12 NAAEE member. Order using the online form found at: <http://www.naaee.org/publications/pubform1101.pdf>, or write to NAAEE Publications & Membership Office, 410 Tarvin Road, Rock Spring, GA 30739, call (706) 764-2926, or e-mail: email@naaee.org.

Working with Water. Bobbie Malone and Jefferson J. Gray. This book is designed to teach young readers about the many ways water has shaped Wisconsin's history, from glaciers to stewardship. It touches on geography and hydrography; historical transportation networks; the Erie Canal;

shipwrecks, lighthouses, shipping and shipbuilding, and the many industries that use water or aquatic natural resources. A teacher's guide is also available that engages students in hands-on exploration, highlighting historical processes and encourages many learning styles. Book: \$9.95; teacher guide: \$24.95. Contact the University of Wisconsin Press at (800) 621-2736 or visit their Web site at: <http://www.wisc.edu/wisconsinpress/>.

Instructional Material

Access Nature. The National Wildlife Federation's new inclusive nature curriculum, *Access Nature*, helps children make a personal connection to the natural world. The adaptations that follow each of the 45 hands-on activities provide educators (formal and non-formal) with the tools to engage participants with hearing, learning/cognitive, motor and visual disabilities alongside their peers without disabilities. Other features include: alignment with the national science education standards, general disability-related teaching guidelines, a fully developed action project complete with accessibility guidelines, and a disability-related resource section. To order a copy of *Access Nature* (\$39.95), call (716) 461-3092.



Adopt-a-Tank. Native Fish Conservancy. Schools, libraries, and other public entities are invited to host an aquarium display of native fishes of Wisconsin. Displays can be used as an educational tool to teach life histories, basic biology and more. Many teachers collect native fish as a class project; others trade with participating schools, or obtain fish through their mentor or fisheries specialists. All equipment is provided at no charge (tanks, filters, and heaters) and the program will help retrofit old equipment. Participation requires a membership with the Native Fish Conservancy and partnership with a mentor. Educational materials can be found on their Web site at: <http://www.nativefish.org>. Contact Robert Rice, Native Fish Conservancy President by e-mail at: president@nativefish.org or call (352) 337-9676.

Multimedia

Life, Legend, Legacy. Wisconsin Department of Natural Resources. A video on Wisconsin's lake sturgeon, an ancient fish species that outlived the dinosaurs faces extinction in many parts of the world but thrives in Wisconsin's Lake Winnebago system. The state's protection and management programs and citizens' love for this prehistoric species have helped quadruple its numbers since the 1950s. This

20-minute video offers a window into the world of this relic and features conservation efforts to ensure its survival in the 21st century. Fantastic underwater video shows the biology of this gigantic, slow-maturing fish. The video also follows the lake sturgeon's evolution from a nuisance species for commercial fishermen, to a fish coveted and plundered for its eggs and meat, to a species now treasured for its longevity, size, and uniqueness. Scenes show biologists and wardens at work monitoring, managing, and protecting lake sturgeon. The video delves into Native American culture, and celebrates the winter spearing season that's a tradition among many Wisconsin families. Cost: \$20 including shipping and handling. Call the Department of Natural Resources, (608) 264-8945, or e-mail: farmim@dnr.state.wi.us.

Web Resources

WebPath Express

<http://www.fsc.follett.ca/products/webpathexpress/index.cfm>
When students search the OPAC they are linked to thousands of relevant, up-to-date links on the Internet supporting hundreds of authorized subject headings. Students are guided to the best K-12 grade-level appropriate information on the Web without spending valuable time searching Web sites -- because we do the work for you.

GreenCom Resource Center

<http://www.usaid.gov/environment/greencom/rsr.htm>
This online resource center is maintained for environmental educators and communicators around the world. Search their collection of over 3,000 titles of books, journals, reports, videos, audio tapes, and other classroom materials in English, Spanish, French, Arabic, and other languages.

The Learning Web

<http://www.usgs.gov/education/>
The Learning Web provides online lesson plans, activities, tutorials (some downloadable and printable in .pdf), and links to references dealing with interdisciplinary studies of natural science. Learning Web curricula pages appropriate for K-12 instruction from the US Geological Survey (USGS)'s vast online collection of fact sheets, data, and program sites.

Art & Ecology

<http://www.getty.edu/artsednet/resources/Ecology/index.html>
A set of resources for teachers and students, including selected readings on a variety of environmental, social, and cultural issues. The main sections of the site investigate artistic orientations, artworks, and community and/or global issues along with historic, critical, and aesthetic dimensions of art education, ecology, and interdisciplinary approaches to developing comprehensive discipline-based art education curricula. A project of the J. Paul Getty Trust. ♦

Winter Calendar

December 5-7. 18th Annual Wisconsin Land & Water Conservation Association Conference. Wisconsin Dells. Discuss leadership, communication, education, funding and partnering for Wisconsin's natural resources. For more information, contact Rebecca Baumann at the WLWCA at One Point Place, Suite 101, Madison, WI 53719, or call (608) 833-1833. Visit their Web site at: <http://www.execpc.com/~wlwca/>, or e-mail them at: wlwca@execpc.com.

December 15, 16, 29, 30. Manitowoc County Christmas Bird Count. Woodland Dunes Nature Center, Manitowoc. Join in this count in the field or watching your home bird feeders. Call Corinne Knab for more information at (920) 793-4007; Woodland Dunes Nature Center, HWY 310 West of Two Rivers, P.O. Box 2108, Manitowoc, WI 54221.

December 22. Shiocton Area Christmas Bird Count. Mosquito Hill Nature Center, New London. Join us for the annual census of resident birds. Census can be done in the field or from home. Contact Mary Swifka, Mosquito Hill Nature Center, N3880 Rogers Rd., New London, WI 54961, or call (920) 779-6433.

January 10. Timber Wolves of Wisconsin. Kettle Moraine State Forest—Northern Unit, Campbellsport. Wisconsin has been a historic home for timber wolves. Floyd R. Henschel of the Timber Wolf Alliance will tell how the wolves are recovering after being extirpated and what the next steps in their management will involve. He also will cover the life history of these amazing animals. This program is most appropriate for adults and youth over the age of 10 years. Ice Age Visitor Center. 7-8:30 p.m. Contact the forest staff at: (920) 533-8322.

January 19. 6th Annual Toward Harmony with Nature Conference. Park Plaza Hotel and Convention Center, Oshkosh. A day-long seminar on native landscaping with keynote speaker Joyce Powers, President of CRM Ecosystems. She will speak on "The Landscapes We Make." Nine other presenters will also provide talks. Contact Carol at (920) 233-4853, or e-mail: HarmonyVI@aol.com.

January 25-27. Study of Wolves. Treehaven, Tomahawk, WI. Experience shared learning with other wolf enthusiasts while tracking, studying in the classroom and field, and learning from professionals and members of the Timberwolf Information Network. Cost: \$155;



includes meals, lodging, and instruction. One college credit is available through the UW-Stevens Point. For more information, contact Treehaven at W2540 Pickerel Creek, Ave., Tomahawk, WI 54487, e-mail jeverson@uwsp.edu, or call (715) 453-4106.

February 1-3. Wisconsin Association of Environmental Education Winter Workshop. Treehaven Natural Resources Education and Conference Center, Tomahawk. Mark your calendars for WAEE's annual Winter Workshop noted for its fun and relaxed atmosphere, good food, skiing and snowshoeing, and homemade music mixed with environmental education. This year's theme, "Keepers of Tradition," will focus on preserving environmental education-related traditions of outdoor skills and knowledge, words and images, and effective teaching. For further information on Winter Workshop 2002, visit the WAEE Web site at: <http://www.uwsp.edu/cnr/waee/>. To register, contact Mary Pardee at (715) 346-4978, by e-mail at: mpardee@uwsp.edu, or contact David Eagan at (608) 249-0409.

February 2. Whistle Pigs & Their Subterranean Neighbors. Mosquito Hill Nature Center, New London. Learn about woodchucks and other underground critters' interesting behaviors including what they eat, how they raise their young, and what's going on down in those dens. Program runs from 1:30-3:30. Cost: \$2.50; \$1.50/students, seniors & friends of Mosquito Hill. Contact Mary Swifka, Mosquito Hill Nature Center, N3880 Rogers Rd., New London, WI 54961, or call (920) 779-6433.

February 10. Project Learning Tree Workshop. Madison. This award-winning environmental education activity guide reaches grades PreK-8 and offers nearly 100 activities for teaching kids about forests and related environmental issues such as: diversity, interrelationships, systems, structure and scale, and patterns of change. Materials are available through this educational and fun training workshop. Contact: Juli Speck, Blackhawk Girl Scout Council, 2710 Ski Lane, Madison, WI 53713, (608) 276-8500.

February 15. Oh Deer! Science through the World of the Whitetail. (9:00 a.m.—4:00 p.m.). Workshop will be held at the WESTfest 2002 (Wisconsin Elementary & Middle School Science Teachers conference). The World of the Whitetail is a new set of Wisconsin teacher's trunks filled with hands-on activities for grades six through eight. The activities focus on such subjects as life science, ecology, and environmental science through the study of the Whitetail Deer. In this workshop, Middle School teachers will have an opportunity to explore the

contents of the trunks, as well as try out some of the activities. Learn to track a deer, age a deer, and act like a deer in this fun, hands-on workshop! Instructed by Jolene Kuehn, DNR Wildlife Education Assistant- Bureau of Wildlife Management. ♦Please note: This workshop will be repeated in a condensed version at the Wisconsin Society of Science Teacher's convention in April at Madison's Monona Terrace Convention Center. For more information contact Jolene at: Department of Natural Resources, WM/4, 101 S. Webster Street, Madison, WI 53707, (608) 266-8130, or by e-mail at: kuehnjj@dnr.state.wi.us. To register for WESTfest, visit their Web site at: <http://www.westsci.org/2002.html> or e-mail Christine Pace at: cpace@coredcs.com.

February 15. The Next American Metropolis: Ecology, Community and Energy Needs. This morning workshop is designed for third through

ninth grade teachers. It will recognize the role of energy in forming both biological and societal communities. Participants will see how closely these concepts are related and will investigate the possibility of harmony between the two worlds. Hands on activities and content dealing with biodiversity, energy consumption, urban sprawl, and sustainable communities will be shared. Participants will

receive over \$50.00 in free materials, including World Wildlife Fund's *Windows on the WILD* guide and the World Resources Institute's *Sustainable Communities* curriculum. Instructed by: Jeanine Staab, Medford Area Middle School and UW-Stevens Point's adjunct faculty teaching such classes as EE/Technology Integration and the KEEP energy class. To register for WESTfest, visit their Web site at: <http://www.westsci.org/2002.html> or e-mail Christine Pace at: cpace@coredcs.com.

February 21. Horticulture Magazine Symposium. Olbrich Botanical Gardens, Madison, WI. Nationally renowned experts come together to provide fresh inspiration and design ideas. A great way to gather ideas for your schoolyard garden. For more information, or to register, call (800) 395-1901.

February 22-24. Study of Wolves. Treehaven, Tomahawk, WI. Experience shared learning with other wolf enthusiasts while tracking, studying in the classroom and field, and learning from professionals and members of the Timberwolf Information Network. Cost: \$155; includes meals, lodging, and instruction. One college credit is available through the UW-Stevens Point. For more information, contact Treehaven at W2540 Pickerel Creek, Ave., Tomahawk, WI 54487, e-mail jeverson@uwsp.edu, or call (715) 453-4106.

March 1-3. Study of Wolves. Treehaven, Tomahawk, WI. See program description for February 22-24.



March 21-23. Northern Landscapes: Connecting People with Nature An Environmental Education Conference for Northern Wisconsin. Telemark Resort, Cable. This special northern environmental education conference is sponsored by the Upper Chippewa Basin Partner Team through a 2001-2002 WEEB Grant. The spring gathering is designed to bring together "formal" (classroom) and "non-formal" educators (i.e. naturalists, resource professionals, etc.). Once together, they will learn about and share their unique knowledge and experiences with teaching students about Northern Wisconsin's ecosystems. For more information, visit their Web site at: <http://clean-water.uwex.edu/upperchip/EE%20Conf.htm> or contact the planning committee members: Sherry Klosiewski, Department of Natural Resources, (715) 365-8966; Sue Benson, Cable Natural History Museum, (715) 798-3890; or Matthew Davis, UW-Extension, (715) 532-6322.

March 27-30. Careers in Forestry and Natural Resources. Trees for Tomorrow, Eagle River, WI. Do you know a high school student that is thinking of a career in forestry, wildlife, conservation law enforcement, soils, water or natural resource management? Careers in natural resources are not always easy to find. This workshop shows where to get the practical education and training you need and you'll experience real-life fieldwork and meet professionals. Cost: \$110/person (includes lodging and meals). Space is limited. To apply, call (800) 838-9472.

April 11. Oh Deer! Science through the World of the Whitetail. Monona Terrace Convention Center, Madison. (9:00 a.m.-12:00 p.m.). This workshop will be held at the Wisconsin Society of Science Teachers 2002 convention. The World of the Whitetail is a new set of Wisconsin teacher's trunks filled with hands-on activities for grades 6-8. The activities focus on such subjects as life science, ecology, and environmental science through the study of the Whitetail Deer. In this workshop, Middle School teachers will have an opportunity to explore the contents of the trunks, as well as try out some of the activities. Learn to track a deer, age a deer, and act like a deer in this fun, hands-on workshop! Instructed by Jolene Kuehn, DNR Wildlife Education Assistant-Bureau of Wildlife Management. For more information contact Jolene at: Department of Natural Resources, WM/4, 101 S. Webster Street, Madison, WI 53707, (608)266-8130, or by e-mail at: kuehnjj@dnr.state.wi.us. To register for the convention, visit their Web site at: <http://www.westsoci.org/2002.html> or e-mail Doug Johnson at: djohnson@madison.k12.wi.us.



April 20-May 26. Marsh Melodies. Horicon Marsh National Wildlife Refuge. A series of outdoor events designed to encourage visitors to enjoy the marsh for its recreational opportunities and its cultural and natural history. The Marsh Melodies events will kick-off with the Celebrating a Century of Conservation Road Rally on April 20 spotlighting the upcoming 100th anniversary of America's Refuge System. The six weekend series has been scheduled as follows: April 20 & 21, Bats, Rats, and Habitats; April 27 & 28, Native American Heritage; May 4 & 5, The Splendor of Wildflowers; May 10-12, Horicon Marsh Bird Festival; May 18 & 19, History of Horicon Marsh Area; May 25 & 26, Pedal and Paddle the Wetland. Contact Molly Stoddard at the Horicon Marsh National Wildlife Refuge at (920) 387-2658, ext. 24.

April 25-27, July 8-30. Environmental Science Institute for Teachers. Purdue University, Indiana. ENVISION is an environmental science institute for middle level teachers, funded by the National Science Foundation. ENVISION helps teachers integrate hands-on local environmental research into their teaching. The program utilizes modules to train leadership teams that are experienced in team-based research and knowledgeable of environmental science concepts and issues, inquiry skills for investigating environmental issues, appropriate curricular, pedagogical, and assessment practices for teaching science within studies of local environmental issues, and strategies to develop educational partnerships with local government, industry, and business. This unique program uses a multidisciplinary approach to the development of scientific concepts and inquiry skills focusing on: water and watersheds, urban and built environments, and rural environments. Spring Pre-Institute will be held April 25-27, and Summer Institute runs from July 8-30. The application deadline is February 15. Contact ENVISION at: 1442 LAEB, Dept. of Curriculum & Instruction, Purdue University, West Lafayette, IN 47907-1442, (765) 494-0803, or by e-mail at: envision@purdue.edu. Visit their Web site at: <http://www.eas.purdue.edu/geomorph/envision>. ♦

EE News is published quarterly by the Wisconsin Department of Natural Resources. Its purpose is to provide: up-to-date information about natural resource topics, suggestions for incorporating environmental subjects into teaching, a forum for environmental education networking in the state, and information on environmental education resources and events.

One copy is sent free of charge to every school in Wisconsin. Individual subscription cost is \$5.00/year. Additional donations are welcome. Please make your check payable to *EE News* and send it to the address below. No purchase orders, please.

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Jeanne Gomoll, graphic designer

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